AD-A211 187

MIT/LCS/TR-422

BOSTON COMMUNITY INFORMATION SYSTEM 1987-1988 EXPERIMENTAL TEST RESULTS

David K. Gifford
David Andrew Segal

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

DTIC
ELECTE
AUG 11 1989
S B D

May 1989

SECURITY CLASSIFICATION OF THIS PAGE

(4)

DTIC ELECTE AUG 11 1989 S B D

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) MIT/LCS/TR-422 ✓	5. MONITORING ORGANIZATION REPORT NUMBER(S) N0014-83-K-0125
6a. NAME OF PERFORMING ORGANIZATION MIT Laboratory for Computer Science 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION Office of Naval Research/Department of Navy
6c. ADDRESS (City, State, and ZIP Code) 545 Technology Square Cambridge, MA 02139	7b. ADDRESS (City, State, and ZIP Code) Information Systems Program Arlington, VA 22217
8a. NAME OF FUNDING/SPONSORING ORGANIZATION DARPA/DOD 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code) 1400 Wilson Boulevard Arlington, VA 22217	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
Boston Community Information System 1987-1988 Experimental Test Results

12. PERSONAL AUTHOR(S)
Gifford, D.K. and Segal, D.A.

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Technical	FROM _____ TO _____	1989 May	241

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Community Information System, Polychannel System, Computer Communication Networks, Distributed Databases, Information Storage and Retrieval, Information Networks, Personal (over)

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

The goal of Boston Community Information System Project is to explore new information system technologies that can provide sophisticated new services to entire metropolitan areas at moderate cost. The Boston Community Information System (BCIS) is a polychannel system that combines digital broadcast and duplex communication in a single integrated framework.

Data from an experimental test of the BCIS system in 200 Boston area homes and businesses have shown that the Boston Community Information System provides a valuable and useful service. We present and discuss all of the data from the experimental test of the BCIS system in Boston area homes and offices from February 1987 to April 1988. The test began in February 1986, and the period form February 1986 to January 1987 is covered in MIT/LCS/TR-397.

We also present data drawn from a second system that we have built called the Clipping (over)

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	Unclassified
22a. NAME OF RESPONSIBLE INDIVIDUAL Judy Little, Publications Coordinator	22b. TELEPHONE (Include Area Code) (617) 253-5894 22c. OFFICE SYMBOL

DD FORM 1473, 84 MAR 83 APR edition may be used until exhausted. All other editions are obsolete

SECURITY CLASSIFICATION OF THIS PAGE

U.S. Government Printing Office: 1986—607-047

Unclassified

89 8 11 041

18. Computing, Database System, Electronic Newspaper, Electronic Mail

19. Service. The Clipping Service provides a personalized information service to users around the world via electronic mail. Based upon a survey of 50 electronic mail users of the Clipping service we have found that it also provides a valuable service.

Accession For	
NTIS GRA&I	☑
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

COPY INSPECTED 7

MIT/LCS/TR-422
Boston Community Information System
1987-1988 Experimental Test Results

by

David K. Gifford
David Andrew Segal

This research was supported by the Defense Advanced Research Projects Agency of the Department of Defense and was monitored by the Office of Naval Research under contract number N00014-83-K-0125.

© 1988 Massachusetts Institute of Technology

Abstract

The goal of Boston Community Information System Project is to explore new information system technologies that can provide sophisticated new services to entire metropolitan areas at moderate cost. The Boston Community Information System (BCIS) is a *polychannel system* that combines digital broadcast and duplex communication in a single integrated framework.

Data from an experimental test of the BCIS system in 200 Boston area homes and businesses have shown that the Boston Community Information System provides a valuable and useful service. We present and discuss all of the data from the experimental test of the BCIS system in Boston area homes and offices from February 1987 to April 1988. The test began in February 1986, and the period from February 1986 to January 1987 is covered in MIT/LCS/TR-397.

We also present data drawn from a second system that we have built called the Clipping Service. The Clipping Service provides a personalized information service to users around the world via electronic mail. Based upon a survey of 50 electronic mail users of the Clipping Service we have found that it also provides a valuable service.

Key words: Community Information System, Polychannel System, Computer Communication Networks, Distributed Databases, Information Storage and Retrieval, Information Networks, Personal Computing, Database System, Electronic Newspaper, Electronic Mail

Table of Contents

Section 1 — Introduction 2
1.1 — Organization of this Report 3
1.2 — Acknowledgments 3
Section 2 — Experimental Overview 4
2.1 — Experiment History 4
2.2 — Experimental Design 4
2.3 — The Architecture 5
Section 3 — Data Analysis of BCIS 8
3.1 — Test Population Profile 8
3.2 — Advertising 9
3.3 — Daily Use 11
3.4 — Most Participants are Willing to Pay $5/month for the System 15
3.5 — Processing of Information 18
3.6 — Suggestions for Changes 18
3.7 — Conclusion 19
Section 4 — The Clipping Service 20
4.1 — The User Population 20
4.2 — Data Analysis 20
4.3 — Primary Data from the Clipping Service 24
Section 5 — Primary Data from BCIS 32

List of Figures

Figure 2-1: The Boston Community Information System Architecture 6
Figure 3-1: The Boston Community Information System User Population 10
Figure 3-2: How much time users spend at their keyboard using BCIS 12
Figure 3-3: Number of Minutes users spend carefully reading articles 13
Figure 3-4: Number of Minutes Computer is Receiving Data via Radio Packet Receiver 14
Figure 3-5: The value of the system to the users 16
Figure 3-6: The Users' Interest in BCIS 17
Figure 4-1: Value of the Clipping Service 22

List of Tables

Table 4-1: Home/Business Applicability 24

Section 1 — Introduction

The Boston Community Information System Project began in late 1982 with the goal of exploring how to provide sophisticated new information services for entire metropolitan areas at moderate cost. In the past six years we have designed, implemented, and tested three new kinds of information services: a *polychannel* system (The Boston Community Information System), a personalized information service based on electronic mail (The Clipping Service), and an interactive local interface to backend database servers (Walter). This report only contains data from the BCIS and Clipping Service experiments.

The primary subject of this report is the Boston Community Information System. The Boston Community Information System (BCIS) integrates digital broadcast and duplex communication via personal computers into a single communication media that provides the cost advanatages of broadcast with the flexibility of interactive communication. We call this new kind of media that integrates simplex and duplex communication channels a *polychannel system.*

From February 1986 to April 1988 we conducted an experimental test of the BCIS system with over 200 homes and businesses in the Boston area. Every month users were requested to answer questionaires that we devised. All of the questionaire data from February 1987 to April 1988 is included in this report, along with some preliminary conclusions about the technology we have developed. Readers interested in our first year's data and results should consult MIT/LCS/TR-397, *Boston Community Information System: 1986 Experimental Test Results.* Beginning in May 1988, the participants of the BCIS were asked to pay $5.00 a month in lieu of completing questionnaires.

In July 1988 Clipping Service users were asked to complete a questionnaire. Section Four includes the data and our analysis of this survey.

Users report that both the Boston Community Information System and the Clippng Service provide a valuable and useful service.

We have tried to present the experimental data in a way that invokes the interest of computer system designers, marketing experts, and the non-expert reader. We hope everyone who reads this report will gain an understanding of the strengths and weaknesses of the technology we have developed.

If you have any questions about the Boston Community Information System, please feel free to contact:

David Andrew Segal
Programming Systems Research
Laboratory for Computer Science
Massachusetts Institute Of Technology
Cambridge, Massachusetts 02139

1.1 — Organization of this Report

This report is organized as follows: Section Two contains the experimental overview of the *Polychannel Technology* (referred to as BCIS), Section Three contains the analysis of BCIS feedback, Section Four contains our analysis and data from the Clipping Service, and finally Section Five contains all the primary data from the BCIS surveys covered by the time frame of this report.

1.2 — Acknowledgments

We wish to thank to all the people that have helped make the Boston Community Information System a success. First, we would like to thank Robert Cote for his time, energy, enthusiam, and devotion to so many aspects of the experiment, as well as his comments on this report. For their time, in not only the overall Community Information System project, but in much of the underlying work involved in this report, we thank: Rebecca Bisbee, David Burmaster, Dawn Heitmann, and Kendra Tanacea. And finally, we wish to especially thank the users of the Boston Community Information System for their invaluable comments and feedback.

Section 2 — Experimental Overview

2.1 — Experiment History

Plans for this experiment were originally made in early 1982 when the funding proposals were written. During late 1982 and early 1983, we worked out the design of an initial system. Once the design was completed in early 1983 we implemented a prototype. This prototype was operational at a site outside of our research group in April 1984, and a small initial test population of 15 users was established. Based upon the experience with this prototype, the system was largely reimplemented during late 1984 and early 1985 to prepare it for a larger scale user test. The initial digital radio channel was replaced with a more reliable design, and the software was enhanced to provide new services.

In 1985, we formulated a plan for a two year test of the Boston Community Information System at approximately 200 local area homes and businesses. The test started on December 17th, 1985 with Version 6.0, a simplex only version of BCIS. On October 7, 1986, users received Version 8.17 of the system, a *polychannel* version of BCIS. In Version 8.17, queries which cannot be processed at a user's personal computer are automatically forwarded, via modem, to server computers at MIT for processing.

2.2 — Experimental Design

The experimental test of the system was performed on a self-selected population of computer literate volunteers. In order to simplify the test subjects were required to own or have access to an IBM Personal Computer. Participants were recruited via advertisements in the MIT paper *Tech Talk*, a mailing to all MIT computer science professors, announcements at the IBM PC users group of the Boston Computer Society, notices in Boston Computer Society publications, and by asking existing participants to recruit new participants.

Participants were given the system for free. However, each participant was obligated to complete and return a two page questionnaire which we mailed out each month. With the questionnaire, we sent a one page newsletter and a postage paid return envelope. At the onset of the experiment we told participants that they would have to return the Boston CommInS system which was loaned to them if they failed to complete and return their monthly questionnaires. In order to reinforce this stipulation, each participant signed a legal agreement to this end when they joined the experiment, along with a statement that they would not

redistribute information received via the experiment. Every month, telephone calls were made to participants who had not sent in their questionnaires for the prior two months. As the experimental data show, some of these users returned their systems and some began again to mail in the questionnaires.

Monthly questionnaires consisted of short answer questions and an essay topic. The short answer questions were designed to focus on particular content, technology, or overall system issues. The essay topics were designed for evaluations and opinions on a wide variety of qualitative issues. All questionnaire responses are confidential.

Since our user community is a self-selected, computer literater population, our results are likely to be more favorable than would be reported by the general population. Despite this constraint, we have tried to fairly evaluate the results of our experiment and the

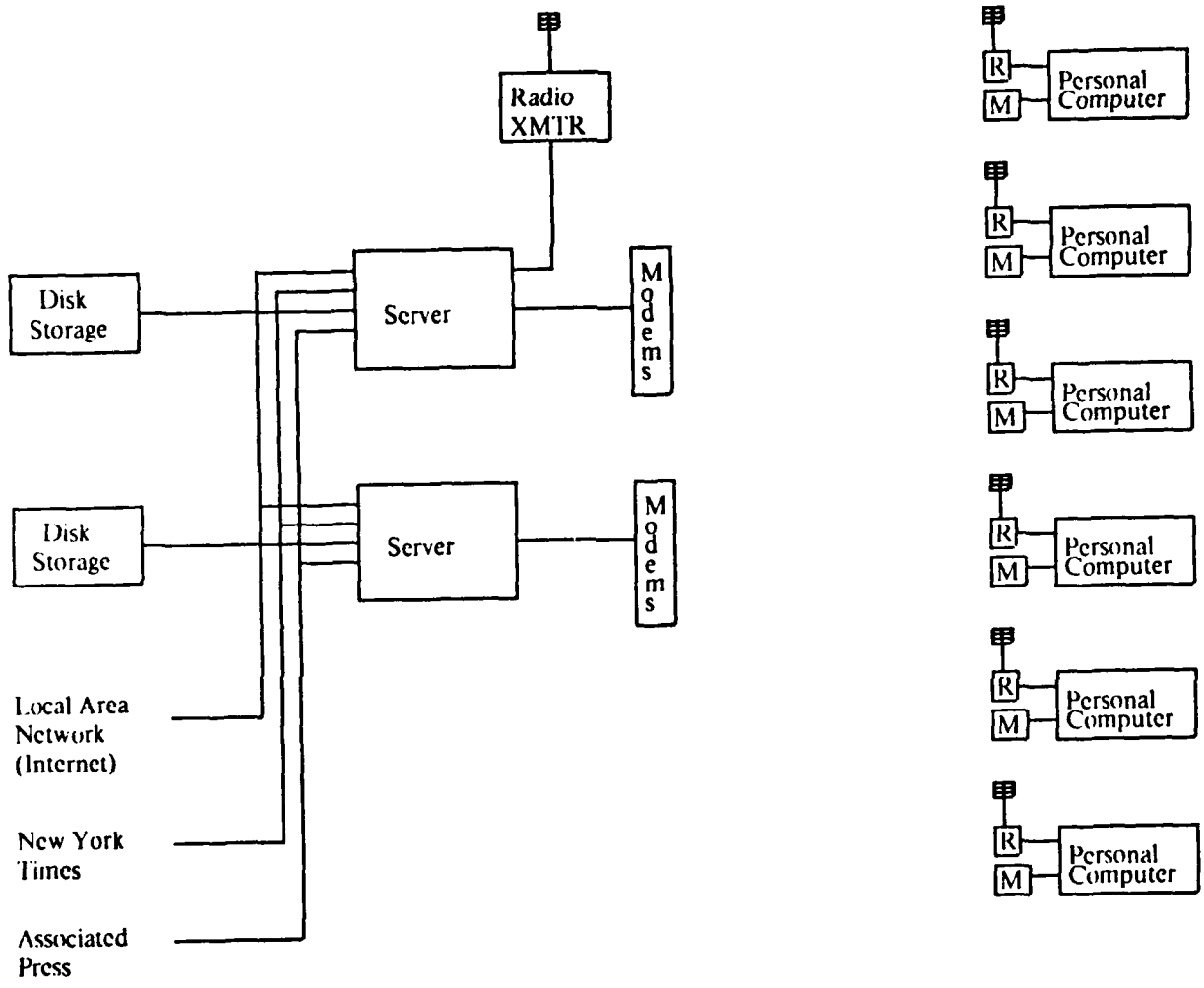
2.3 — The Architecture

The Boston Community Information System provides up-to-the-minute access to the *New York Times* and *Associated Press*. The BCIS system consists of (see Figure 2-1):[1]

- *Server computers* at our laboratory that transmit database updates to remote sites and service user transactions. These machines continuously receive *New York Times* and *Associated Press* wire stories. When the information is received, it is immediately queued for transmission via our digital broadcast channel and is stored in a full-text database system. Two servers are used to insure high reliability--they process and receive identical information.
- We broadcast articles via a *digital radio channel* as soon as the article is received, and then in a round-robin queue for the next two days.
- Each user has a *personal computer* and a *packet radio receiver* tuned to our broadcast frequency. The computer maintains a local database drawn from the broadcast channel. Requests for information not in the local database are forwarded to a server computer via phone lines with the use of auto-dial *modems*. There will be a delay to process information by the server, but otherwise use of the server computers is completely transparent.

---

[1]Gifford, David K. MIT/LCS/TR-420, *Polychannel Systems for Mass Digital Communication.*



System Block Diagram

Figure 2-1 The Boston Community Information System Architecture

strengths and limitations of our technology.

Section 3 — Data Analysis of BCIS

Between February 1987 and April 1988 we distributed questionnaires on a monthly basis to all the participants in the Boston CommInS experiment. Certain questions were asked repeatedly to explore variations in time. However, we found that the responses to many questions were not correlated with how long participants had been using the system. This section focuses on the major themes we discovered in our analysis of the experimental data.

3.1 — Test Population Profile

Figure 3-1 shows the number of participants in the Boston CommInS project for each month covered by this report. As of July 30, 1988, there have been outflows in the test population as participants have returned their receivers. There have been relatively minor inflows (in the fifteen months covered by this report, only 26 new systems have been installed). During this time, we did not have a major distribution, nor did we advertise for additional participants. Any new participants heard of us through word of mouth and expressed their desire to enter the experiment.

The individuals currently using the system are predominantly male, ranging in age from twenty to forty. Over half of the participants are affiliated with the Massachusetts Institute of Technology. The vast majority of the system users have some experience with personal computers, with only 5% having less than one year of PC experience (novice level).

Statistics on the User Population

Sex:

- 87% male
- 13% female

Age:

- 2% under 20
- 30% in their twenties
- 42% in their thirties
- 15% in their forties
- 12% in their fifties

PC Experience:

- 5% less than 1 year
- 66% between 1 and 5 years
- 29% over 5 years

Almost 75% of the test population is a member of the academic community (students, professors, etc). However, among the rest of our users a diverse range of professions are represented: hardware/software engineers, research scientists, physicians, librarians, teachers, a television producer, an army officer, a landlord, a publisher, an architect, a journalist, a political scientist, a psychologist, and an archeologist.

While we have gained invaluable knowledge from our users' responses, it is important to realize that the population is a very select one. The responses our test population gives may differ vastly from responses that would be given by broader segments of the population.

3.2 — Advertising

The BCIS system is potentially useful for advertising

We asked our users whether they would like to see advertisements added to BCIS. All but 5 of the 88 respondents agreed to the addition. Their acceptance, however, was largely based on the recognition of the need for financial support from sponsors. The users viewed this financial need to be greater than "the anticipated nuisance of dealing with the advertisements."

The users offered a variety of methods to limit the nuisance of ads. Though three users favored the interspersement of advertisements with news stories, overwhelmingly, the users favored the use of one or more separate categories for advertisements. Another user suggested offering users their personal choice of separate categories or interspersement. Those who favored interspersement believed that separate categories would not be viable because they would not be an effective means of advertising and therefore would not attract sponsors. Eleven respondents suggested adding a "turn-off feature" so that they could avoid all advertisements.

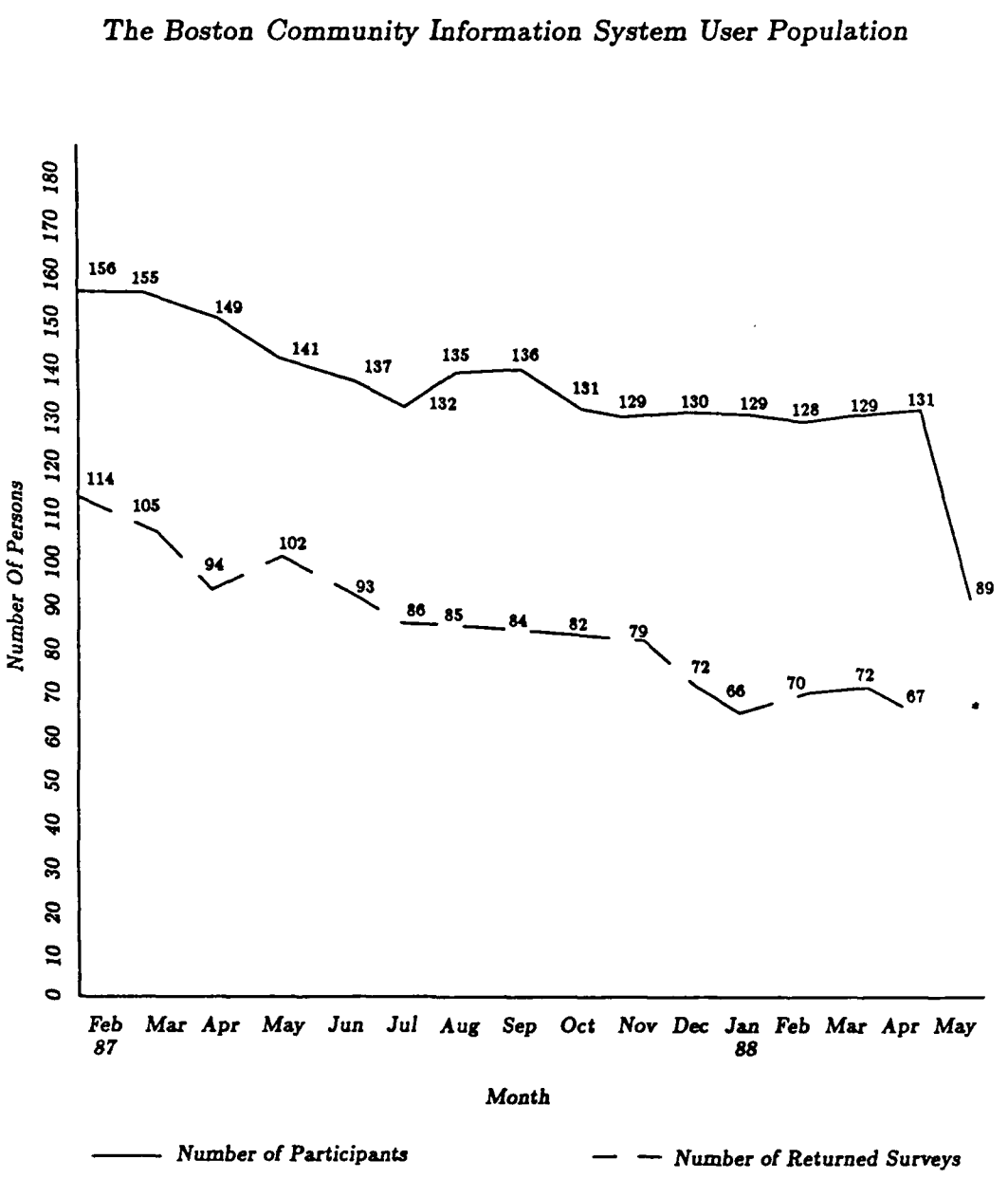


Figure 3-1: The Boston Community Information System User Population

As an alternative to their aforementioned methods of advertising, some users also suggested the following alternatives:

- place advertisements at the beginning of the introductory section
- instead of advertisements, accept and acknowledge sponsorship for individual articles along the lines of public radio and television
- introduce advertisements into the duplex mode together with transaction services
- exploit the selectivity of BCIS to help advertisers reach specific consumer types by creating demographic criteria which users can put in their filter lines and advertisers can target.

The users largely regarded BCIS as an effective medium for advertisement, and they likened it to other advertising media including: the Yellow Pages, Boston Globe classifieds, the Boston Computer Society Vendor's Book, and mail order catalogs. Several respondents considered that BCIS would be even better than these traditional media since it supports timely and convenient updating of information and user-defined searches. In general, users characterized BCIS as a potentially valuable tool for serious shoppers. They stated that in-depth descriptive and price information would be necessary and would obviate the need for graphics.

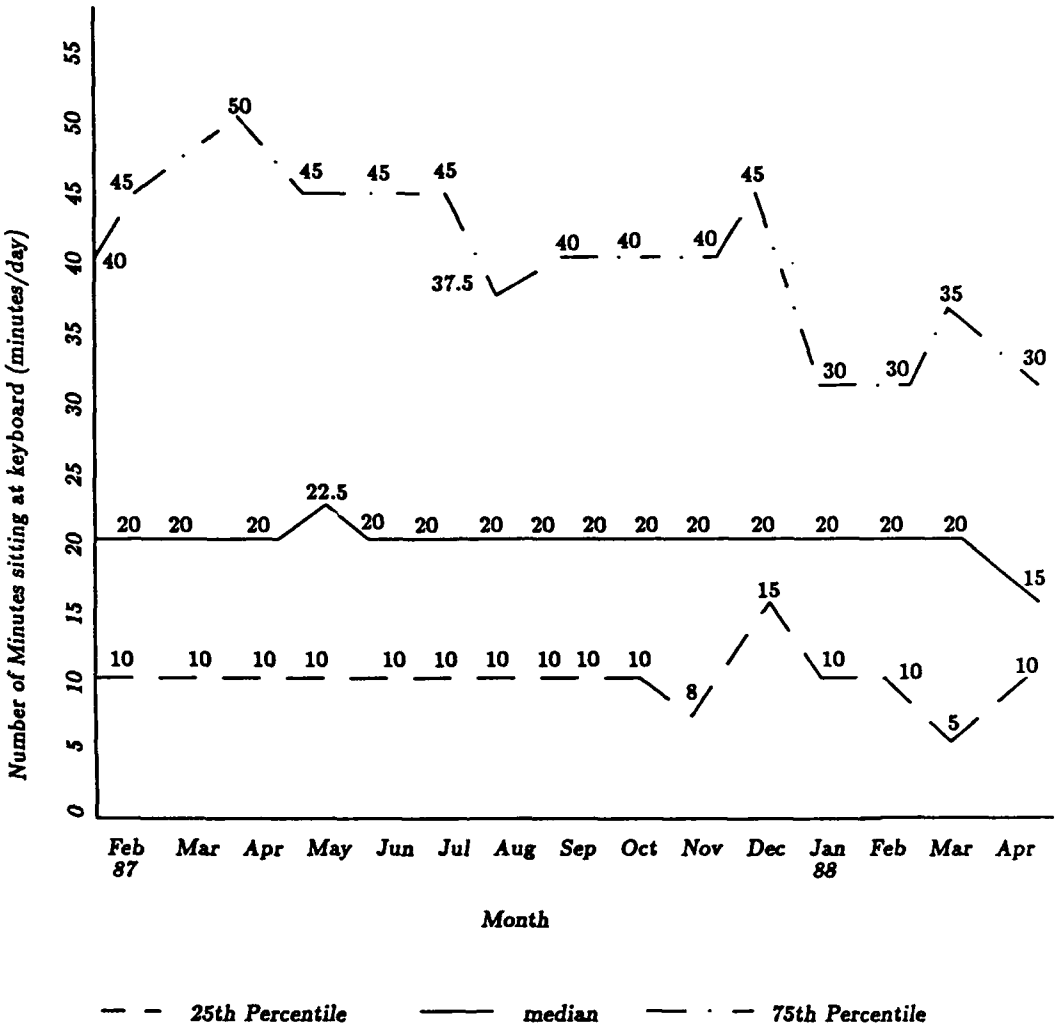
The users also believed BCIS would be useful in service industries and in industries where products and suppliers undergo rapid change, such as the computer, real estate, airline and financial service industries. BCIS would be effective for advertisement of: classified advertisements; employment opportunities (as a job mart); books and other publications; movies, concerts, and other performances; on-line computer services; and restaurants (including their menus). Respondents felt that at the present state of technology BCIS would not be a good medium for advertising fashion related products as these would require graphics.

Overall, there was a general feeling that advertising in BCIS would be necessary and plausible, but would have to be carefully designed to make the ads enhance, rather than detract from, the system's value.

3.3 — Daily Use

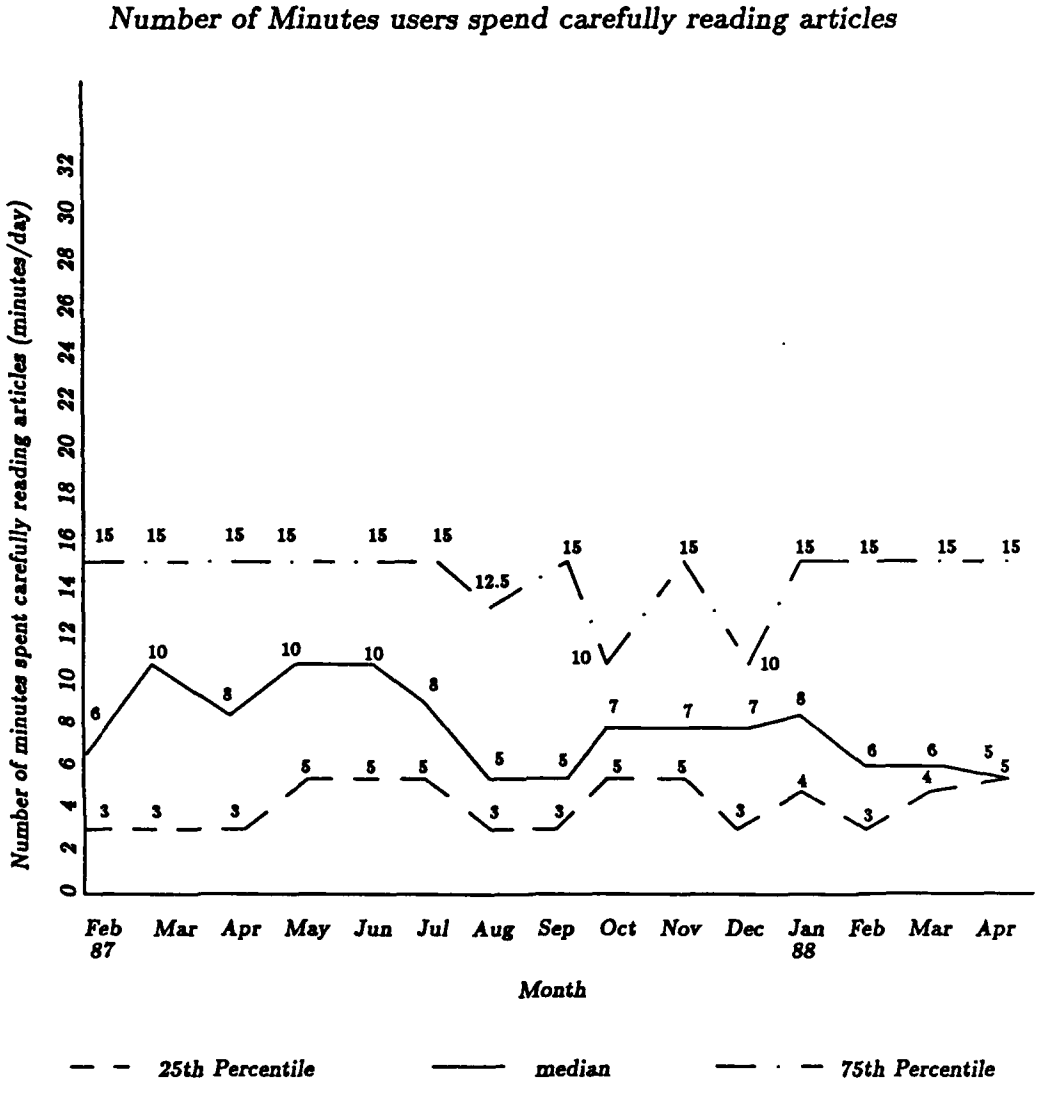
Figures 3-2 and 3-3 illustrate that the participants, on the average, use the system for about 30 minutes per day, 5 to 10 minutes of which is spent carefully reading news articles. Figure 3-4 shows that the BCIS users have the system running an average of 6 to 8 hours a day.

How much time users spend at their keyboard using the BCIS



This graph displays the various percentiles of time users spend at their keyboards using the Boston Community Information System. It is based on the responses to question 81.

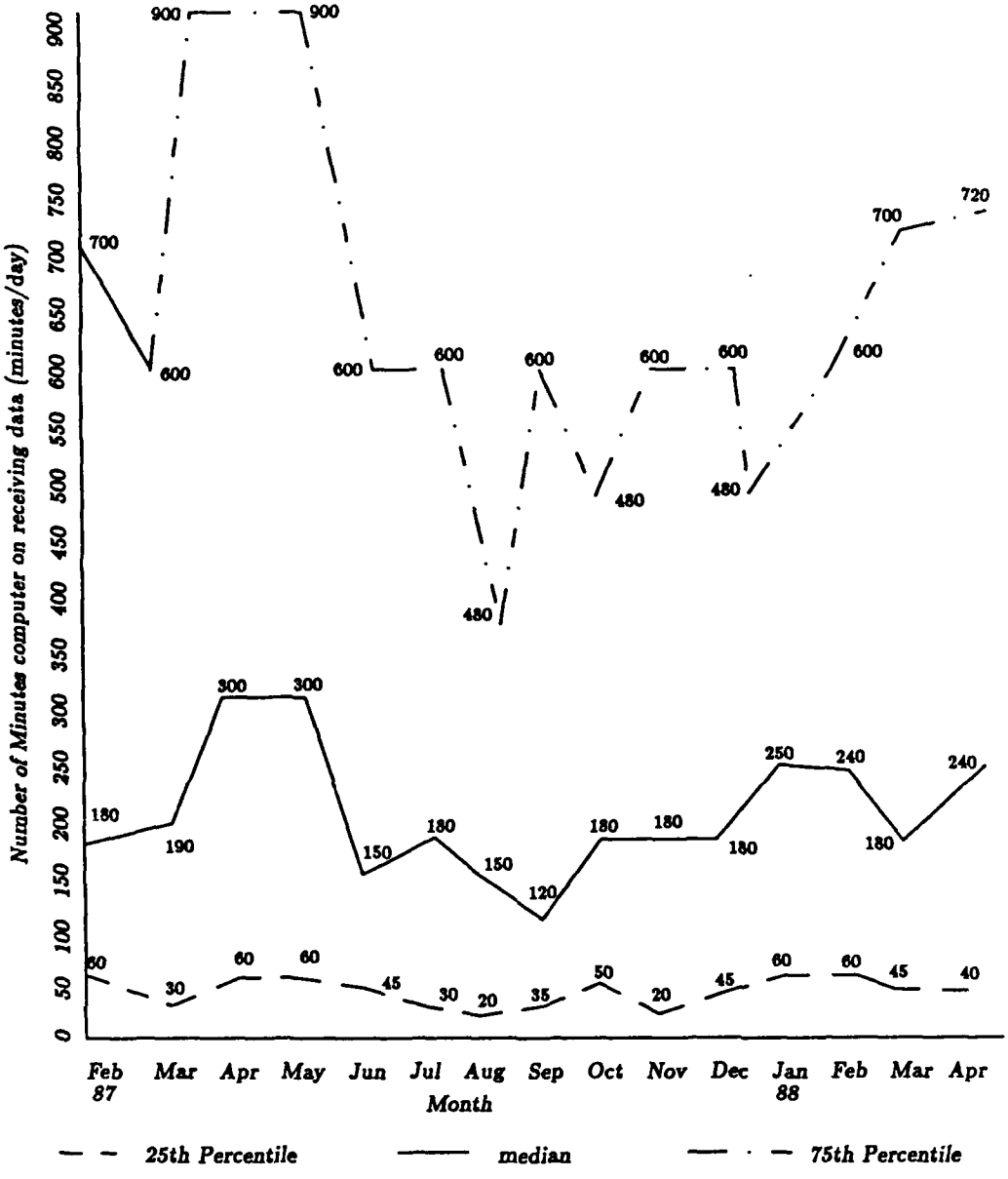
Figure 3-2: How much time users spend at their keyboard using BCIS



This graph plots the 25th, 50th, and 75th percentiles of the amount of minutes users reported that they carefully spent reading articles in each given month. This graph is based on the responses to question 47.

Figure 3-3: Number of Minutes users spend carefully reading articles

Number of Minutes Computer is Receiving Data via Radio Packet Receiver



This graph displays the percentiles of the number of minutes per day that users have their computers turned on receiving data. It is based on question 44.

Figure 3-4: Number of Minutes Computer is Receiving Data via Radio Packet Receiver

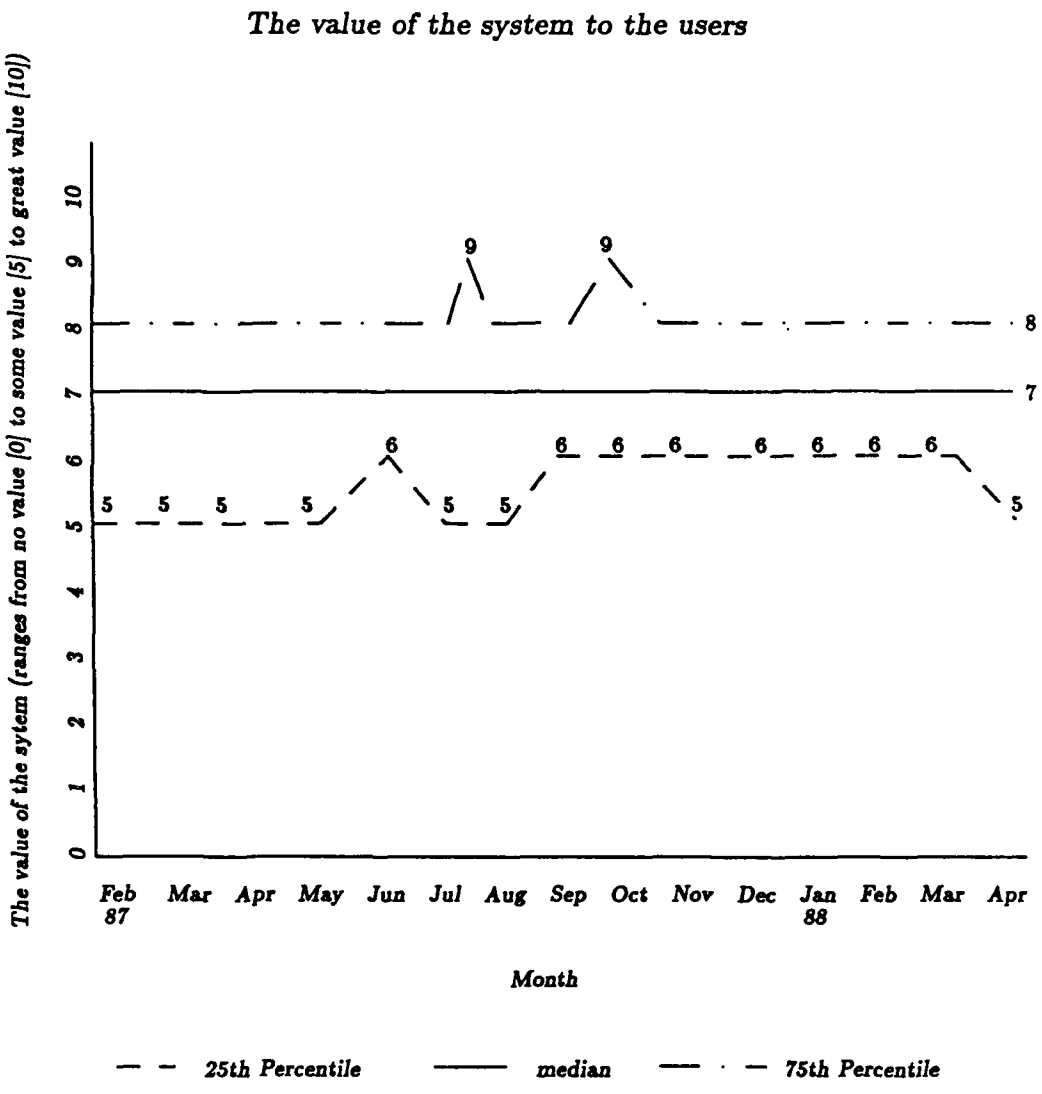
The system provides a valuable daily service

Given these results, it is apparent that the system is providing a valuable service to the users on a daily basis. Furthermore, the users consistently (as shown in Figure 3-5) found the service to be extremely valuable, despite the occassional decreases in the time they spent using the system (as shown in Figures 3-2 to 3-4). Additionally, the users have shown to have a consistent interest in the system (Figure 3-6).

Based on this data, we conclude that the system provides a daily, valuable service to its users.

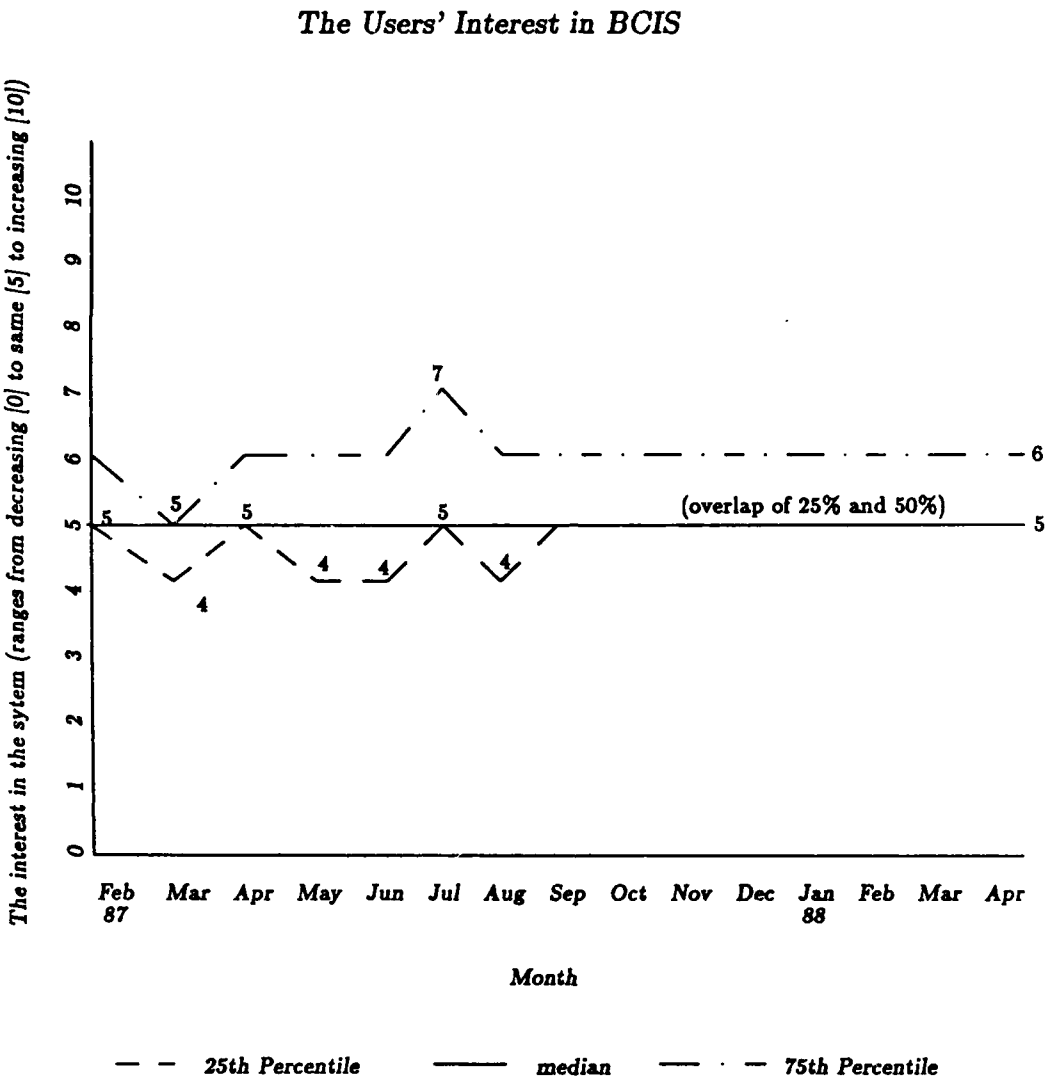
3.4 — Most Participants are Willing to Pay $5/month for the System

When we first explored what users felt an appropriate cost of the system should be, their responses ranged from no cost to $150.00 a month. However, an overwhelming number of users felt the system would have to be in line with a newspaper subscription cost of about $15.00 a month, or perhaps even less.
When we asked the participants whether they would continue in the experiment if we charged them $5.00 per month for the service, 69% answered 'yes.' In May, we instituted a $5.00 monthly fee and stopped sending out surveys. Of the 131 systems in use at that time, 89 users decided to continue with the experiment, or roughly 68% of the May population.



This graph plots the various percentiles of the user perceived value of the system. They rated the value on a zero (0) to ten (10) scale. The graph is based on responses to question 70.

Figure 3-5: The value of the system to the users



This graph plots the users' interest in the system. It is based upon Question 93.

Figure 3-6: The Users' Interest in BCIS

3.5 — Processing of Information

Participants are enthusiastic about the filtering facilities

An average user had 30 lines in their personal filters. A common theme in the respondents' essays was the need to kept refining filters to get the most value from the system. One participant wrote, "First and foremost, I've built some skills at writing filters to catch the articles I want" and another wrote "I change, refine, and delete filter lines on a regular basis." Furthermore, the respondents frequently stated the decreasing time they spent with the system was not due to lack of interest, but rather increased skill in developing the filters to trap articles of interest.

3.6 — Suggestions for Changes

There were five suggestions for improving the Boston Community Information System that were requested with great frequency:

- allow the system to run in background mode as part of a multi-tasking environment
- design a "black box" which would receive and process incoming data so that the computer doesn't always have to be running
- expand to other computers (especially, the Macintosh by Apple Computer)
- have the remote system be able to retrieve more than 90 days worth of information
- increase allowable length of filter lines, or institute "macros" or "global" filter lines

The need to dedicate one's computer to BCIS is considered a major drawback. Though users felt the system is better when the system ran for longer periods of time, less than 1% of our users are currently dedicating their personal computer to the system.

One final annoyance the users found was the prevelance of duplicate or nearly-similar articles. Unfortunately, the wire services often send duplicates so that the different newspaper editors can read an article or simply to make a

change to the article. The users often suggested that there should be an efficient mechanism to eliminate them from their database.

3.7 — Conclusion

The system provides a useful service

Based upon the data analysis of this section, our major conclusion is that the Boston Community Information System provides a valuable service. Participants consistently rated the overall system as valuable and felt they were better informed with the system. Perhaps more importantly, participants reported that they actually use the system an average of 31 minutes a day, during which time they scan an average of 46 article summaries, 21 articles, and carefully read 8 articles (Data from February, 1987).

Section 4 — The Clipping Service

The Clipping Service is a project that was developed as a part of the Boston Community Information System. The Clipping Service was built to explore a new way to use electronic mail as an infrastructure for computer based applications. All communication between users and the clipping service is via electronic mail. Users are able to mail commands to the service and the system mails articles to the users which match their user-defined interest profile. For more information on the Clipping Service, consult MIT/LCS/TR-398, "Clipping Service User's Manual."

4.1 — The User Population

The current Clipping Service population is made up of over 50 users. Users are required to have electronic mail boxes accessible via the INTERNET or INTERNET gateways. Our users' addresses range from Boston to California, Paris to Switzerland, and from Japan to Israel. They include MIT students, MIT staff, outside professionals, and members of other universities. The population is composed of 92% males and 8% females.

4.2 — Data Analysis

Use of the system requires computer literacy

First, and foremost the system requires use of an electronic mail system. This fact alone own suggests that the user population is comfortable with computers. Additionally, the users rated the interface as simply "ok," yet felt it was easy to learn [7.04 average on a 1 to 10 scale, where 10 is easy]. We believe our users found the system easy to use because of their familarity with computers.

The system provides a valuable and useful service

Over 50% of the responding participants rated the information as being of interest level 8 or higher on a scale to 1 (little interest) to 10 (great interest). Their average response was 7.46.

The users also felt the service kept them better informed, with over 75% responding with an 8 or higher, and over 25% of the respondents answering 9 or higher (on a 1 to 10 scale, where 10 is better informed). The average response to this question was 8.41.

Furthermore, the users overwhelmingly felt the system had excellent value. They responded on average that the system had a value of 8 on a scale of no value (1) to great value (10). Over 75% of the users rating the system a 7 or higher and over 50% rating the system 9 or higher. (See Figure 4-1)

Another indication of the system's usefulness is that the users said they would pay an average of $9.50 a month to receive the service. (More information on how much the users are willing to pay for the system is discussed below.)

Finally, one user commented, "I think this is a great system and is a view on the future."

Filter lists provide users with a flexibility that permits them to access a wide range of interests.

The user population has a combined total of 600 filter lines covering over 400 different interests. Their interest ranged from **AIDS** to **New York Mets** to **U2**, from **Palo Alto** to **Boca Raton** to **Tibet**, from **Sun Microsystems** to **Digital Equipment** to **Xerox**, and from **Berkeley** to **Harvard** to **MIT** to **Wesleyan**.

There was also significant interest in the *New York Times* **World Briefs** and **National Briefs**, which provide a summary of the day's top world and national news stories. Over a third of the users receive these articles.

Furthermore, in a typical day the Clipping Service sends out over 350 messages and the users report they receive an average of 10.71 articles a day.

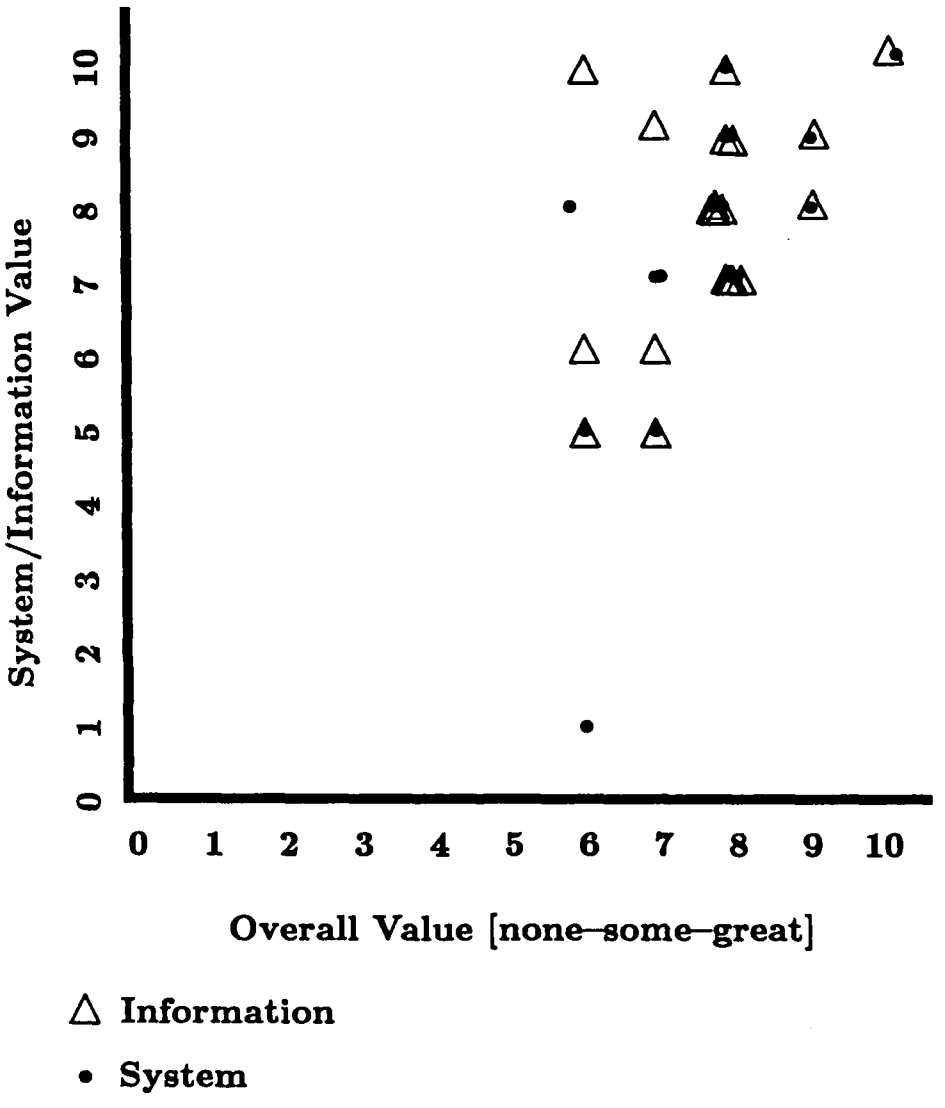


Figure 4-1: Value of the Clipping Service

More news services would enhance the system, but the technology is viable in the home and business world.

The users overwhelming felt that the system would be enhanced by adding additional services, an average 7.48 on a 1 to 10 scale (a 1 representing 'no' and a 10 representing 'yes'). And, over 25% of the respondents said that additional services would definitely be an enhancement (a response of 10 on the aforementioned scale).

Interestingly, the users found the system to be, on average, equally applicable in both the home and business worlds. Furthermore, no matter how the users felt about the service's viability in the business world, they found it useful in the home environment. Table 4-1 maps the user response for business versus home applicability. Thus, of the users who responded that the system had an applicability of 5 in the business world, their average response to its applicability in the home was 7.5.

The system is viewed as comparable to commercial clipping services.

When the users were asked how much they would pay for an individual article, over 75% of the users were able to associate a cost per unit ($0.02). On average, they felt $0.04 would be an acceptable commercial per article price. When asked about a monthly cost, the users stated they felt an average cost of $9.50 a month was realistic. This amount is comparable to receiving 10 articles a day at about $0.04 per article. In other words, the users would be willing to pay for this technology as they would for a commercial clipping service, on a per article basis.

Improvements to the system are needed.

The users generally complained about two flaws in the system. First, they found receiving duplicate articles annoying. This problem mainly stems from our news providers sending the articles under multiple categories. Secondly, the users complained that there are times when they receive articles that matched their filter, but are of little or no interest to them. These problems would probably need to be corrected if a fee per article commercial system were to be successful.

The following section contains the complete primary data received from our users.

Table 4-1: Home/Business Applicability

Average Responses	
Home	Business
2	7
3	10
4	7
5	7.5
6	10
7	7
8	7.8
9	8
10	6.8

This table shows the average response for question 21 (home use) based on the user's response to question 20 (business use).

4.3 — Primary Data from the Clipping Service

The section presents the primary data received from our users in the one time questionnaire analyzed in the preceding section. The questions requiring a numerical response are given as a question number and corresponding text. These questions are numbered in the order they were asked. The numbering has no other significance.

An example of the format of numerical response questions in this chapter is:

1 I find that the information available is of: 0 [little interest]--10 [great interest]

28	1.00	7.00	8.00	9.00	10.00	7.46

As the column headings in the chapter will show, the first column is the number of users who responded to the question. In this case, 28 users responded to this question. The second and sixth columns are the minimum and maximum responses received, 1.00 and 10.00 respectively in this example. The middle three columns are the 25th, 50th and 75th percentiles of the responses, shown here as

7.00, 8.00 and 9.00, respectively. The last column is the average response, which in this example is 7.46.

Furthermore, the users saw this question in the following format:

```
1.  I find that the information
    available is of:          0  1  2  3  4  5  6  7  8  9  10
                           little interest          great interest
```

Finally, of the 53 questionnaires we sent out, 38 responses were received.

Clipping Service Survey Responses

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
1 I find that the information available is of: 0 [little interest]--10 [great interest]						
28	1.00	7.00	8.00	9.00	10.00	7.46
2 Using the system, I trap the NYT Editorials: Yes [1] No[0]						
31	0.00	0.00	0.00	0.00	1.00	.19
3 I read the COX news service articles: 0 [never]--5 [occasionally]--10 [often]						
24	0.00	0.00	0.00	6.00	9.00	2.92
4 I trap the various news BRIEFS: 0 [never]--5 [occasionally]--10 [often]						
24	0.00	3.00	8.00	10.00	10.00	6.96
5 I find the advisories of: 0 [little interest]--10 [great interest]						
23	0.00	1.00	1.00	3.00	10.00	2.26
6 In my filter, I select stories by the CATEGORY field, e.g., (category: lifestyle): 0 [never]--5 [sometimes]-- 10 [often]						
26	0.00	0.00	0.00	3.00	10.00	2.54
7 In my filter, I select stories by the SUBJECT field, e.g., (subject: arts): 0 [never]--5 [sometimes]-- 10 [often]						
24	0.00	5.00	8.00	10.00	10.00	6.92
8 In my filter, I select stories by the AUTHOR field, e.g., (subject: arts) [sic]: 0 [never]--5 [sometimes]-- 10 [often]						
29	0.00	0.00	0.00	2.00	10.00	1.90
9 The system would be enhance by adding other news sources: 0 [no]--5 [maybe]--10 [yes]						
25	0.00	6.00	8.00	10.00	10.00	7.48
11 With the service, I feel: 0 [less informed]--5 [same]--10 [better informed]						
27	5.00	8.00	9.00	9.00	10.00	8.41
12 I receive approximately ___ articles a day from the clipping service.						
24	1.00	3.00	3.00	13.00	50.00	10.71
13 I find the system has: 0 [no value]--5 [some]--10 [great value]						
27	2.00	7.00	9.00	9.00	10.00	8.00
14 I change my filter: never [5] daily [1] weekly [2] monthly [3] yearly [4]						
28	2.00	3.00	3.00	4.00	5.00	3.44

15 The system helps me trap articles I missed while reading the paper: Yes [1] No [0]

29	0.00	1.00	1.00	1.00	1.00	.90

16 The system was easy to learn: 0 [no]--5 [somewhat]--10 [yes]

25	0.00	4.00	7.00	9.00	10.00	7.04

17 The system's interface is: 0 [poor]--5 [ok]--10 [excellent]

27	1.00	4.00	6.00	7.00	10.00	5.70

18 I spend approximately ___/day reading articles I receive from the system. (Answers converted to minutes)

25	1.00	5.00	10.00	20.00	60.00	19.88

19 I receive articles I am not interested in, but match my filter: 0 [rarely]--5 [sometimes]--10 [often]

23	0.00	3.00	7.00	8.00	10.00	5.91

20 The system would be applicable in the business world: 0 [no]--5 [maybe]--10 [yes]

25	2.00	6.00	8.00	9.00	10.00	7.60

21 The system would be applicable in the home: 0 [no]--5 [maybe]--10 [yes]

27	2.00	7.00	8.00	8.00	10.00	7.52

22 The system (both the information available and the interface) has: 0 [no value]--5 [some]--10 [great value]

28	6.00	7.00	8.00	8.00	10.00	7.86

23 I would pay $__/article if the system was avaiable [sic] commercially.

21	0.00	0.00	.02	.05	.20	.04

24 I would pay $__/month if the system was available commercially.

24	0.00	3.00	5.00	10.00	50.00	9.50

User's Comments

In this section, you will find the user's written responses to three survey questions. They were asked:

Which other sources should be added to enhance the system

Which commands they would like to see added

And, any other comments they had
Each individual's responses are then separated by *****s.

*****

WSJ and foreign newspapers

I would like to see: Ability to specify actions in filter lines. Right now every filter line has the implied action MAIL-ARTICLE. I would perhaps benefit from other actions, such as "Include first 20 lines of textbody of article in a single mail message to be sent to me at Noon." Perhaps other actions would also be useful.

None

*****

a. UPI b. AP c. non-dailies (e.g., Village Voice, Time, etc.)

I'd like to see a more interesting way to access it, something X based.

I really enjoy the idea, but wish the implementation were a little easier.

*****

a. Wall Street Journal b. Technical Journals (CACM, ...) c. Local news (MIT, Cambridge, Lexington)

not enough experience with changing filters to know.

I think this is a great system and is a view on the future.

*****

AP, Reuters News wires

My-REAL-E-mail-Address-is:
My-NEW-E-mail-Address-is:
Show Category Statistics
Show Clever Matching scheme examples
Show category relationships

You should add an information structure to the indexing method(s). A simple sub-section of Roget's Thesaurus would aid greatly in formulating a user-profile to boost precision and recall. You should investigate the PhD dissertation of Abromowicz, and it's user-feedback in selective dissemination of information models in information retrieval. You should look at concept-space indexing to improve performance.

*****

Wall Street Journal

The most useful field to me should be the subject field since the articles I would like to read generally fall under a small set of subjects. I had to abandon using the subject field though because I found that there was not enough cross referencing by subject and therefore many interesting articles were slipping through my filter.

I also find that I receive a number of duplicate articles a day. This is a technical flaw that I think should be fixed.

In general I think the clipping service is well designed and very useful.

*****

a. Wall Street Journal b. AP c. Other sections of the NYT that don't get sent

This survey is buggy, Dave. What does it mean to "trap" articles, as used in questions 2 and 4? Does it mean I've got something in my filter to explicitly get such articles, or that such articles incidently match my filter? Why does question to have a yes/no answer, while question 4 has a 1-10 answer?

Question 8 could probably have a better example, e.g. one which uses the author field, and not the subject field again.

What are COX new service items, and how are we supposed to know what you're talking about?

As for the system itself, over its lifetime it has had many occurance of problems of the sorts that it fails to deliver anything for a long time and then suddenly dumps megs at once to us, and that messages contain garbage such as many control characters.

*****

Washington Post

*****

a. Wall Street b. Le Monde :-)

Alt the invoice of data for X days, upto day D, upto my request (useful for vacation). That may already exist; I didn't check.

*****

Christian Science Monitor

Merge Changes with Current Filter (DWIM)

*****

a command that enables me to change the address the messages are sent to. A command that enables me to fetch articles from yesterday's paper or those that i have missed in the morning because my filter was not updated.

*****

AP

*****

Reuters (but can't really tell because I can't tell which services arrive via the clipping service)

*****

AP

Part of every query is a filter to weed out as best as possible articles that match the query, but are not really of interest: such as advisories, news summaries, etc. This part of the query is often the same for a number of queries. It would be nice to have a way to equate some string to a query fragment. When the string is used in a query, it would automatically be expanded. More generally, some kind of macros facility along the above lines might be useful.

A better way is needed to filter out articles that do not really fit the intent of a query; i.e. to narrow the scope of a query without inadvertently discarding interesting matches.

Often the subject, category or author lines are not filled in correctly. When this happens, either articles that would be appropriate are missed; or articles that are inappropriate are sent.

This comment really concerns Walter. When an important news event is in progress, it would be nice to be able to get frequent updates. It seems that the New York Times service is not updated very frequently. Perhaps the AP wire is better in this regard.

*****

Wall Street Journal

I would like to see the following commands added:

More clever filtering, always (I want articles ABOUT holland, not articles that merely MENTION it) Also, budgets for each filter line might be useful -- I might set them all to one to eliminate duplicates

*****

(other sources): Don't know

*****

alternative news services

*****

Wall Street Journal (highly desirable), AP (nice but not vital)

*****

I would like to see the Wall Street Journal, as well as magizine entries (e.g. High-Technology Business, Business Week, Newsweek, Scientific American, etc.).

Is there some method for searching back issues?

I am a relatively new user, so I have not yet explored all the system capabilities.

*****

How about Scanning the Ieee/acm publications?

Way to match multiple words in a sequence, i.e. "Cray Research"

*****

a. AP UPI News wire b. Wall Stree Journal, Dow Jones c. other newspapers such as the LA Times, Washington Post, etc.

*****

One of the things that I miss from a normal newpaper is the lack of wire photos or diagrams that sometimes accompany articles. It seems that the nyt is going to start sending pictures out in some format that can be shown on a mac. It would be nice to have a program given one of these wire photos, produce the image using the X window system.

Will send me a copy of the survey results when they are finished? How can I get a copy of MIT LCS TR-398 "Clipping Service User's Manual"? It would be nice to be notified of any changes such as when the clipping service moved from db to dbx. The only way I found out about it was when news articles started to show up from dbx.

*****

Wall Street Journal

I can only send filters through XX, not Vax, or through my lisp machine this would help tremendously if it was made to do that.

*****

AP, UPI (maybe you have these already, I just get NYT I believe)

I would like to be able to change my filter by sending mail from any machine. (This could be a capability that could be set on a per account basis.) This would enhance the system's usefulness to me, especially now since I am working in Zurich, Switzerland, for a couple years (before returning to MIT). Otherwise, I have to have a friend log in to my XX account to be able to change it.

*****

Wall St Journal

*****

Local news, e.g., Boston Globe;

I would like to see the following commands added: regular, optional status reports of regular, optional recommendations for expanding/improving one's filter more example filters

Other Comments I didn't find the documentation "obviously" easy to use, so I put off enhancing my filter. Perhaps catchier, briefer documentation would be possible.

*****

Boston Globe

*****

An interactive mode, at least at first, so I had some idea of what the possible filter ranges might be would have been nice.

I imagine there are things for which I would like to filter but don't realise are there.

Since I get the briefs, I sometimes see stories I'd like to know more about. There no way to request a followup, is there?

The syntax of the filters is to me (a Lisp and TECO hacker, not a C or CLU hacker) quite obscure. I am never sure when I get no match from a new filter whether I've screwed it up or what. Perhaps the system should mail an english description back at me.

*****

Dow Jones

Why cannot my address work right?

In addition to "matched line is FOO" I would lke to see: "matched filter line is FOO matched news line is ... FOO ..." right at the top of the message to make reading faster

*****

AP Wall Street Journal

*****

WSJ, AP, net news? or something similar

ALLSLUGS -- a list of all the slugs (with accompanying title or first sentence of articles that arrived tha. y)

*****

Wall Street Journal, Stock Quotes

Better diagnostic messages and a copy of the user manual would be nice

---

Section 5 — Primary Data from BCIS

This chapter presents the questions posed in the monthly questionnaires along with the responses we received from each user during the second fifteen months of our experiment. In order to insure the privacy of each user, all indications of personal identification have been completely removed. The comments are marked by the serial number of a user's receiver, and the correlation of users and serial numbers is kept confidental. This chapter is divided by months, starting with February 1987 and ending with April 1988. Each month is further divided between questions subject to numerical analysis and questions which required an essay response.

The questions requiring a numerical response are given as a question number and corresponding text. These questions are numbered so that the same or similar questions from month to month can be easily compared. Furthermore, all question numbers are consistent with the first year data as published in MIT/LCS/TR-397. The numbering does not correspond to a sequential ordering of each month's questions, but rather a increasing list of questions as the surveys progressed throughout the year. For instance, the following question appeared in most of the monthly questionnaires:

```
Average Time spent using Boston CommInS during the last month:

Computer Receiving Data from Boston CommInS: ____ Minutes/Day
```

We can easily compare how the response to this question has changed over time because this question is numbered the same for every month. It is question 44. Note that the numbering each month does not necessarily start at the same point, nor is it devoid of gaps.

An example of the format of numerical response questions in this chapter is:

44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS
__ Minutes/Day

74	0.00	45.00	150.00	600.00	1440.00	438.65

As the column headings in the chapter will show, the first column is the number of users who responded to the question. In this case, 74 users responded to this question this month. The second and sixth columns are the minimum and maximum responses received, 0.00 and 1440.00 respectively in this example. The middle three columns are the 25th, 50th and 75th percentiles of the responses, shown here as 45.00, 150.00 and 600.00, respectively. The last column is the average response, which in this example is 438.65.

February 1987

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
100	0.00	60.00	180.00	700.00	1440.00	430.82
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
98	0.00	5.00	10.00	15.00	120.00	14.89
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
97	0.00	5.00	8.00	10.00	120.00	11.88
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
99	0.00	3.00	6.00	15.00	120.00	11.97
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
93	0.00	0.00	1.00	5.00	60.00	3.75
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
97	0.00	20.00	50.00	100.00	2500.00	123.86
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
96	0.00	10.00	20.00	50.00	400.00	45.80
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
96	0.00	5.00	10.00	25.00	100.00	20.40
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
96	0.00	2.00	5.00	10.00	40.00	8.04
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
93	0.00	0.00	1.00	2.00	30.00	2.25

55 I find that the information available is of: little interest--great interest

89	0.00	5.00	7.00	8.00	10.00	6.13

67 Using the system, I feel: awkward--OK--comfortable

105	3.00	5.00	6.00	8.00	10.00	6.35

70 I find the system has: no value to me--some--great value to me

105	0.00	5.00	7.00	8.00	10.00	6.62

72 When looking for specific information, I prefer to: read the newspaper--use the system

104	0.00	5.00	7.00	8.00	10.00	6.68

73 When reading for general information, I prefer to: read the newspaper--use the system

104	0.00	2.00	3.00	6.00	85.00	4.76

81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.

103	0.00	10.00	20.00	40.00	300.00	30.84

93 My interest in the system is: decreasing--unchanged--increasing

103	1.00	5.00	5.00	6.00	10.00	5.17

104 With the system, I feel: less informed--same--better informed

104	4.00	6.00	8.00	8.00	10.00	7.40

129 I use the modem connection for two-way access: not at all--some--every day

101	0.00	0.00	0.00	2.00	10.00	1.46

130 Of this time, I use the two-way features with my modem ___ minutes/day

95	0.00	0.00	0.00	2.00	25.00	2.67

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

67	0.00	0.00	0.00	3.00	25.00	2.64

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

64	0.00	0.00	0.00	2.00	25.00	1.50

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

63	0.00	0.00	0.00	1.00	20.00	1.00

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

59	0.00	0.00	0.00	0.00	3.00	.27

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

87	0.00	0.00	0.00	2.00	45.00	3.38

140 On average, I use the modem connection: less this month--same--more

84	0.00	2.00	5.00	5.00	10.00	3.73

143 For business/professional applications, I find the system: not useful--very useful

103	0.00	4.00	6.00	8.00	10.00	5.74

144 For home/personal applications, I find the system: not useful--very useful

102	0.00	4.00	6.00	7.00	10.00	5.77

145 On average, I read the newspaper less/more now that I have the system: less--same--more

105	0.00	3.00	5.00	5.00	10.00	4.29

146 On average, I watch the news on television less/more now that I have the system: less--same--more

104	0.00	4.00	5.00	5.00	8.00	4.45

147 By 1995, I think that electronic publishing will REDUCE the fraction of people who read standard newspapers by: 0%--50%--100%

104	0.00	1.00	2.00	3.00	10.00	2.45

148 I feel the system has more applications in the business world: false----true

98	0.00	5.00	7.00	8.00	10.00	6.79

149 I feel the system has more applications in the home environment: false----true

95	0.00	3.00	5.00	7.00	10.00	4.75

150 I find the system: a novelty----a genuine aid

104	0.00	5.00	7.00	8.00	10.00	6.53

I feel that the system has more applications in the home environment. Two ways to make the system more appealing in homes:

classified ads.
entertainment information, TV.
--1005

inexpensive.
system on more than IBM PC's.
--1006

color, color, color.
wider range of articles.
--1007

easy to use.
cheap hardware requirements.
--1009

classified ads.
yellow pages.
--1011

friendlier, more powerful user interface.
wire servers aren't meant to be read directly - publish material for this market.
--1013

his and hers personal and work filters.
multitasking PC's to let it run in the background.
--1019

more 'soft' news - wine, movie, travel news.
'jock' stuff - scores and sports write-ups.
--1025

lower cost.
easier usage.
--1041

appeal -- is to get user desired specific information up to date.
--1043

access to local news/papers.
local shopping/sales ads.
--1051

Gee??
--1057

more computer related information.
contain TV and radio schedules which can be indexed by subject.
--1065

local entertainment.
museum notices.
--1068

add more sources.
improve software.
--1072

include advertising and TV schedule.
--1075

really has to be easier to use [i.e. for non-computer types].
add more information on local event calendars.
--1076

real estate ads.
help wanted ads.
--1077

windows - multitasking.
color.
--1080

cover more publications.
make it work on more equipment - or rent a box to attach to TV.
--1084

option to eliminate near-duplicate stories automatically.
variety of journals covered.
--1087

shopping data, loan and financial information.
graphics.
--1092

more service-publications.
more local information.
--1096

home improvement/do-it-yourself articles.
daily airline/bus/train schedules (up to date).
--1098

Sorry I cannot help on this point, the system does exactly what I want - Mr. and Mrs. Average want entertainment at expense of content. You need only look at what passes for TV and radio news coverage.
--1105

movie guide and reviews.
classified ads.
--1106

base cost on number of areas of interest.
include local news/current events.
--1109

include movie/play/lecture/sports schedules.
community news and information.
--1112

articles with more perspective and depth or book reviews.
broaden range to include home repair and maintenance topics.
--1115

have for sale section.
include a TV guide.
--1116

real estate for sale.
home repair tips.
--1118

can't think of any.
--1119

low cost.
--1121

not used at home.
--1125

wider range of data.
simpler (somehow) filter interface (very simple - OK now, but for mass use it must be trivially easy to use).
--1126

travel information e.g. ski reservations.
real estate/classified listings.
--1127

keep it cheap.
improve reception at greater distances.
--1131

transfer to Tandy Mod 4, Apple IIa-e, Mac, Commodore, Adam and Atari.
--1134

make it cheaper (eliminate need for PC).
make it much much easier to use.
--1137

make box into half-height card for PC slot or full-height card with medium capabilities.
--1138

job market.
real estate, travel.
--1144

My interest in this is in fact rather special, namely to compare 'raw news' with published information, as part of my concern with media analysis.
I don't know why others are interested.
--1148

increase people's interest in computers.
increase people's spare time.
--1150

pictures!
add stand-alone receiver that does not require concurrent use of computer to explore articles.
--1153

I miss the headlines to some degree. You should stress the importance of newssummary. The headlines in a newspaper make you aware at a glance of what's news now.
--1160

more local news/events.

menu driven - friendly.
--1161

classified section.
e-mail ordering of prod.
--1162

make it deal better with venetian blinds.
--1164

hard to use; see above 1st answer.
--1165

eliminate PC and put in TV or self-contained.
quality output.
--1168

jazzier user interface.
--1171

off load function to receiver -- (CIS makes my PC grind to a halt when used with DesqView).
comparison shopping guides.
--1173

faster response in computer or program (must equal or exceed speed of turning newspaper pages).
pictures.
headlines (larger type).
other means of providing ability to skim.
--1174

more topics of interest to consumers.
ability to interconnect/filter Compuserve, Source, Delphi, etc.
--1178

add more information on local events.
add more business news -- good for people who are interested in business and investing, but who do not actually work in those fields.
--1181

advertised specials.
--1184

offer home banking.
offer stock data.
--1187

same as above.
--1188

graphics.
information services.
--1192

incorporate it into a relatively idiot-proof appliance.
add some graphics capability.
--1194

carry very local news, schedules, information.
provide timesharing services as well as data.
--1197

magazines.
--1198

more entertainment offerings.
make data available to other programs: restaurant guides, recipe database, house control (energy management based on local weather conditions).

--1201

more sources of information also to do with finances:
tax information, investment information, specific (see
above).
--1205

keep cost modest.
advertise as educational.
--1206

offer more entertainment.
any way to accommodate games?
--1207

add consumer magazines to the database.
get more computers into homes.
--1208

most appealing to home market as a home office.
--1209

format information more appealingly.
give more search capabilities in more data bases.
--1210

offer better software and hardware (more complex).
offer magazines.
--1214

more specific topics.
wider variety of sources.
--1215

provide voice output of news articles.
not require that the computer be on for long periods.
--1217

catalog purchases.
recipes.
--1218

better software.
editing and filing capabilities.
keep radio on the air 24 hours.
--1219

connect to TV (low cost).
local news and offerings.
--1220

color.
graphics.
--1221

offer more human interest articles - not AP releases - travel, home
repair, movie reviews, local events.
--1223

add information search and acquisition in other data bases.
--1225

include graphics to make the system more user appealing.
possibly add classifieds.
--1227

offer ads, graphics.
offer encyclopedia for kids -- cross-indexed to death so they can
really follow up on topics.
--1228

almost have to have dedicated CPU (reduce cost).
better man-machine interface (MMI).
--1229

have advertising.
--1234

simplify user interface.
invent a solid-state 'hard disk' so I wouldn't feel nervous leaving it on while I'm out.
--1235

MUCH EASIER interface.
broader range of sources.
--1240

let it run in background.
--1241

include articles from magazines.
--1242

low cost to subscribers.
news for and about children.
--1243

consumer features such as classifieds and ads.
local community news.
--1244

provide home shopping.
provide material for younger people.
--1247

I feel that the system has more applications in the business world. Two ways to make the system more appealing to businesses:

stock market quotes.
latest business information .
--1005

stock prices.
possibly graphics.
--1006

receive more business specific information
--1007

increase number of relevant data bases.
make system easy to use.
--1009

information on stocks.
include Wall Street Journal.
--1011

use the broadcast technology for information of interest to business (stock prices).
--1013

with copyright privileges permitted and desktop publishing software utilized a 'morning report' could be easily prepared each day and be available for top management.
a similar scanning of the weekly business magazines could provide excerpts and a 'should read' (include page #) list.
--1019

increase the speed of transmission/reception.

increase the ability to screen: we are interested in AIDS, but get articles on foreign aid.
--1021

help with home-brewed stock and broker manipulations.
academics and service industries that need on-line news with great control over subject titles.
--1025

more powerful selection algorithms ('AI-like').
example applications and pre-selected data bases (eg a CD Rom).
--1038

wider coverage.
greater retrieval functionality.
--1041

easy access.
ease of use.
getting around steel framing of buildings.
--1051

get the Wall Street Journal.
develop a series of business subject headings.
--1057

contain the Wall Street Journal.
--1065

put on professional journals.
put on abstract services.
--1068

add more sources.
improve software.
--1072

provide services such as advertising or catalog information.
possibly financial/tax information.
--1076

stock quotes.
Wall Street Journal type articles.
--1077

stock quotes.
remove prohib. on keeping hardcopy.
--1077

offer stock prices.
offer articles from more publications such as Wall Street Journal.
--1084

cover economic/business journals.
international and business news.
--1087

patent and product database.
financial data.
--1092

production hardware should be slicker.
add e-mail to modem connection.
--1096

professional journals (many).
new product reports.
--1098

The average person wants to be entertained, people in business want

facts, brief summaries and clear presentation.
--1105

up-to-the-minute stock market prices.
allow advertisement on the CommInS.
--1106

base cost on number of areas of interest.
volume/site discounts.
--1109

cost.
work well.
--1110

daily updates on industry development.
--1112

more interaction with data base.
develop cluster groups of special interest users.
--1115

stock and index information.
provide a database of recent business information.
--1116

stock prices.
new products in businesses.
--1118

provide means for legally acceptable archived storage.
ensure completely uncensored access to all bases.
--1119

unless I don't see some content of value to business - why?
--1121

integrate it with Microsoft Windows.
--1124

not in business.
--1125

more financial data.
wider range of information available - especially government and international news.
--1126

more financial research sources.
--1127

show them how to make use of computer when not performing its primary function i.e. overnight.
--1130

have specialized subject broadcasting on selected frequencies.
add positional operators to query language.
--1131

an early alert encompassing filters concatenated.
a BS filter to can sports scores and sow bellies.
--1134

simpler interface.
more careful (intelligent) filtering.
--1137

include stock listings.
make it more portable.
--1138

Dow Jones and stock prices.
international business news.
--1144

don't know.
--1148

wider data net.
easier remote query.
--1150

?
--1153

Businesses might set the system to hunt for articles about them, about their rivals, about developments in their fields...you wouldn't have to change the system, just make this part of your marketing - also, stress to professors (ex: political science profs.) the great advantages of the system.
--1160

larger database.
more flexible.
--1161

ads.
stocks.
--1162

have trade journal articles to allow for searching for articles and then looking them up.
--1163

unknown.
--1164

easy to get specific information on competitors, etc.
--1165

background operation without double dos.
real-time data, too and data compression.
--1168

put business news in database, i.e. Dow Jones.
stock query capability.
--1171

more sources.
diskless operation.
--1173

carry specialized publications.
include advertising with quick response capability.
--1174

ability to interconnect with ARPAnet, Usenet, other net news.
more powerful and flexible filtering.
--1178

add business news - e.g. Wall Street Journal.
be able to capture stock prices to individual stocks.
--1181

more financial data.
--1184

provide more data elements to allow more complete horizontal analysis.
provide frequent updates since last update of time sensitive information.
--1187

use of more varied database.
expansion to non-IBM hardware.
--1188

graphics.
--1192

add business publications to the data base e.g. Wall Street Journal.
add frequently updated stock market quotes.
--1194

handle ads and PR.
provide training facilities.
--1197

stock quotes/updates.
Wall Street Journal.
--1198

stocks.
allow articles to be used in press releases
and/or stockholder mailings.
--1201

More than what? than at home?
--1204

more business sources of information.
specific daily stock quotations (keeping track of your own portfolio).
--1205

reduce cost of hardware.
introduce cost of repeated use at
can't-afford-to-be-without-it price.
--1206

offer a cost per firm w/ many users.
offer a wide variety of news and business sources e.g. stocks news.
--1207

add trade publications to the database.
--1208

sell it - really - get out of experiment.
offer Wall Street Journal too.
--1209

more business databases.
more specific search capabilities.
--1210

offer the Wall Street Journal.
offer stock quotes.
--1214

more specific topics.
wider variety of sources (i.e. more than NYT, AP).
--1215

provide specialized information.
--1216

provide frequently updated securities quotations.
provide access to a large number of business publications.
--1217

seminar listings.
purchasing functions.
--1218

better software - much better.
more up-to-date releases.
--1219

provide information in specialized areas such as stocks.
business classifieds.
--1220

on line stock prices.
graphics.
--1221

better graphics.
easier interface.
--1222

download stock prices.
separate categories for different industries.
--1223

increase number of sources available (i.e. trade publications).
--1227

offer a general background information option - like an encyclopedia.
--1228

decisions of future are made with current knowledge.
more complete information.
--1229

less cumbersome keyboard use.
--1233

have advertising.
--1234

extend to special-interest subjects, e.g. American Banker.
better filters, so user could trust the print-on-arrival function to
get a minimum of clutter.
--1235

wider range of sources.
better filtering software.
--1240

does it run on a LAN?
--1241

include Wall Street Journal articles.
--1242

allow for advertisement.
provide 'wanted' ads and career opportunities.
--1243

easy way to integrate receival data into standard PC software.
LAN access?
news server?
--1244

more news summaries.
more business analysis.
--1247

By 1995, I think that electronic publishing will or will not REDUCE the fraction of people who read standard newspapers. Two reasons for my answer are:

more concise information.
easier to find specific information.
--1005

electronic publishing not portable.
startup cost for companies pushes this past 1995.
--1006

more up to date news.
easier to read.
--1007

low user acceptance.
small number of computers at home.
--1009

I can only guess.
people like to get away from screens.
--1011

I think EP will have some impact.
I think newspapers are an attractive medium, and so far, more portable.
--1013

custom newspapers (similar to your experiment) will be available.
hi-rez portable lap top computers can be used to read them anywhere
(and there won't be kids willing to get up in the morning to deliver
regular newspapers).
--1019

other uses for computer terminals will dominate their use.
--1021

Why 20% reduction? Electronic publishing will not
replace newspapers because 'editing' the news is a skill. I believe
maybe 20% of the reading public will welcome the chance to select
their own news. The more canned the news electronic papers present,
the greater their success is likely to be. At the same time, I think
electronic publishing will change the kinds of newspapers that are
available. Printed papers will tend to be either more specialized
(e.g. Banon's) or more general (e.g. USA Today).
--1025

people interested enough to use electronic publishing will be active
news seekers.
papers have attributes not on Epub e.g. ads, pictures.
--1038

cost, convenience.
also, even if successful, both will be used.
--1041

paper is convenient -- goes with you.
easier to browse and read.
--1043

less expensive computers.
more rapid access to medium.
--1051

electronic publishing has a different purpose.
people will always read newspapers.
--1057

TV has already reduced newspaper reading.
it [electronic publishing] will be a new medium.
--1065

more [people] will have computers.
people still like hardcopy and ads.
--1068

it's more convenient.
it's more directed to desired information.
--1072

the large amount of information in newspapers.
newspapers can be read anywhere.
--1075

Certainly closer to 0 than 10%. I don't think EP adds much to standard newspaper fare, so it is really a question of which costs the consumer less. If the cost of standard newspapers rises significantly over the next 10 years, perhaps there could be more penetration. Filtering would have to work a lot better to get competitive advantage over papers.
--1073

cost of system compared to papers.
lack of quality images/graphics.
--1076

habit.
browsing a newspaper is more relaxing.
--1077

portability.
pleasure reading.
--1080

equipment will probably be available to more people.
bulk of data will demand electronic access.
--1084

prevalence of home computers.
pleasure of using system.
--1087

for some, better specific information.
habits won't change that much in eight years.
--1092

everyone will have computers.
--1096

PC's still will not be widespread.
it's difficult to get people to change habits.
--1098

not many home computers, even then.
TVs may begin to compute about then.
--1100

Although I myself am enthusiastic, I prefer a newspaper when I feel a need to relax and concentrate or contemplate. Computer serves the needs of the on-the-go and hyper.
--1105

technological limitations such as graphics at present.
faster information distribution with electronic newspaper.
--1106

proliferation of personal computers.
innundation of businesses with paper.
--1109

use of the computer.
you need to have a computer.

--1110

newspapers will be available electronically.
it is not clear that newspaper readers will own a PC.
--1112

convenience, selectivity of data.
ability to store/print information.
--1115

CIS is not as comprehensive as a local newspaper.
CIS will probably be [used] in conjuction with a paper.
--1116

convenience of access on the computer.
timeliness of news received.
--1118

volatile epublishing is useful for expendable data.
you can't put it under your arm to provide reading material during unpredictable idle hours.
--1119

I think it will reduce radio and TV listening but not newspapers because papers can give full articles better than short, abbreviated pieces and are easier to read and browse.
--1121

it won't be more because paper is so cheap.
there'll be a large micro computer base.
--1124

hard to move computers, hard to share with others, photographs.
but: for specialized interests the system will be very valuable.
--1125

complexity of the system.
cost compared to newspaper (estd.).
--1126

two different groups [unknown word].
access to networks will still be elite.
--1127

cost of system prohibitive.
vast majority are not computer literate.
not as portable as newspaper.
--1130

still not enough people will have electronic access.
electronic access will be seen as supplementary not supplanting.
--1131

weight of portable terminals.
awkwardness of clipping from crystal displays.
--1134

people who use electronic publishing will use if for special services.
by 1995 terminals won't be smart enough to make epublishing easier to use than papers.
--1137

people want news as soon as possible after an event happens.
more direct route to the news they want.
--1138

newspapers are important because of their wide circulation/impact; I read them because others do and are affected by them.
not exclusive.
--1141

need for specific information.
need for instantaneous access.
--1144

the press provides a different kind of access.
--1148

the two are supplements not complements.
video technology has a long way to go.
--1150

newspaper available for people on the run and in odd places.
unless videotex goes herself into pictures, people will still want to see things.
--1153

I don't think people will give up newspapers.
newspapers offer comics, food sections, pictures, visuals that electronic publishing does not.
--1160

search keys -- tailor.
ease.
--1161

the ease of use of this system.
the increase of computers in the home/business.
--1162

the scan problem will be solved.
better screen resolution -- show real pages.
--1163

scanning is nice.
people don't sit at their tubes often enough.
--1164

computers not widespread enough or easy enough to use.
--1165

editing adds value.
quality output adds value.
--1168

convenience.
query capability.
--1171

a newspaper's portability will be hard to approach with computers.
paper is hard to beat for browsing.
--1173

limitations on computer penetration.
portability of newspapers (ideal for non-driving travelers).
--1174

timeliness advantage, graphics disadvantage.
need for more sophisticated and customizable filtering.
--1178

newspapers are easy to browse.
electronic publishing is a supplement to reading newspapers and may reduce the number of newspapers an individual reads, but he will still read at least one regular newspaper.
--1181

if you can read night before.
local access (low cost) monthly fee regardless of use.
--1187

newspapers will continue to be cheaper therefore not > 30%.
electronic publishing is more efficent for gathering information.
--1188

use of e.p. for information like movie schedules.
ability of e.p. to search/organize by content.
--1192

1995 is only eight years away and electronic publishing has shown no evidence of being a viable mass-market sustitute for newspapers.
there is not yet a mass-market 'appliance-like' device to access the data.
--1194

newspapers are a broadcast medium without selectivity, and perhaps a third of newspaper readers read them only for selected types of items.
image processing will provide a dynamic and novel element into publishing of encylopedias, news, scholarly works and should begin to be commonly accepted in the next five years.
--1197

cheaper distribution.
quicker access.
--1198

consider how long it takes for touch tone telephones to reach the population despite the lower cost.
cost.
--1201

newspapers are easier to scan and more portable.
you can't eat breakfast in front of a computer.
--1204

some people won't like reading a screen.
some people will find it convenient.
--1206

ease of use.
cheapness and availability of PC's.
--1207

electronic publishing is a good way to get news.
limited to 20% due to limited computer diffusion into home, can't read computer on the subway, etc.
--1208

this technology will supplant printed newspapers.
--1209

availability of equipment.
interest in format.
--1210

more information available.
low cost laser printing.
--1214

number of people who use computers will still be lower than number who read newspapers.
many won't give up the tangible feeling of newsprint -- flexibility of reading wherever you are.
--1215

newspapers are portable.
newspapers provide the valuable editing of which stories are carried.
--1217

ease of access.
--1218

portability of newspapers.
cost.
--1219

papers readable 'everywhere'.
cost.
--1220

electronic publishing is instant.
ease of use.
--1221

physical: sitting at a terminal is uncomfortable.
intellectual: cannot accomodate random selection.
--1222

there's too much repetition of articles by computer.
you can't look at the screen while eating breakfast (seriously, this is when I read the paper!).
--1223

habits are hard to break.
computer screens are low pass filters.
--1225

as more PC's enter homes, exposure to electronic publishing will increase.
electronic news offers features (such as queries) not available with standard newspaper.
--1227

newspapers can be (and are) read on the subway, in restaurants, etc.
residual fear/unfamiliarity with PC's.
--1228

system articles will not be read in newspapers.
system articles are specific.
--1229

more availability of a competing media source.
ability to access specific articles/subjects only.
--1233

the primary market for electronic publishing will be 'news junkies' and they'll still read newspapers.
--1234

would have greater impact if printers become faster and quieter e.g. cheap laser printers.
people still like to browse the ads, pictures, etc.
--1235

most people are (and will be in 1995) still uncomfortable with electronic media.
hardcopy is portable and easier to use (you can read a newspaper easily while commuting).
--1240

newspaper is infinitely more portable than computer.
newspaper is good overview -- computer is good for focus.
--1241

can't take PC with you.
screen can be hard to read.
--1242

not everyone will subscribe to electronic publishing.
no need for power and batteries to read paper news and it has pictures.
--1243

public is TV addicted.
newspapers are portable and convenient.
--1244

few computer users; less time available.
who wants to hold their computer with their coffee cup in hand? Also,
hard to read computer in bed.
--1247

Please comment on these two hypotheses about the future of the Boston CommInS technology:

Hypothesis #1: For commercial success, the Boston CommInS system must go beyond the realm of the conventional newspaper and provide not only high-demand information but also easy access to information offerings.

"True, it is the filters which select certain information which are most important."--1005

"True! If the system is seen only as a larger 'database' than a newspaper without easy access other than sequential or random searches, the fate of the system is death from non-use. An ability to quickly obtain information on a particular subject and cross correlate with other information is a must."--1006

"I feel this is important because the service becomes more important when the news is up to date. It must have the news before the newspaper to give it an advantage. The interactions between CIS and the user is very important to allow the user to search for items they may have missed."--1007

"I don't agree. The system is easy enough for me now. I want less AP type articles of absolutely no interest. I would like articles from Time magazine and the Boston Globe."--1011

"I'm not sure what you mean by 'information offerings', but I re-iterate that I think you must publish for this medium. Would you read the newspaper or the TV news? You need editors who know what the target audience is, and write for them."--1013

"Yes, but I believe the key features include keeping your phone line available, and the user adjustable filter concept -- which itself requires good coding (classification) of information to keep from getting too much junk. A diverse enough audience (? with good purchasing power) may bring out new information providers. Perhaps time slots will be necessary to facilitate matching sellers and buyer filters (i.e., Apt rentals between 2 and 3am Mon-Wed-Fri, Home Sales between 2 and 4am Tues-Wed-Sat) etc. You could program your PC to swap in appropriate filters at the scheduled time and not pick up any thing at all when certain categories appear."--1019

"I think that easy access is the key, perhaps so much so that references to articles in specific newspapers or (someday) in a set of journals and magazines might almost be as valuable. I keep finding myself without the time to look at the articles when I'm at the screen."--1021

"Not completely. You can 'can' things from a conventional paper in ways that will sell. For sports bettors, sell scores, odds and team and game profiles. However, I would pay more for bibliographic services especially if you could do it cheaper than services already on market. The map program with restaurants and other goodies located for you really excites me. That kind of interactive stuff is where your market may be. Also, if the computer-stored morgue were more complete I would pay more (that is had an infinite memory)."--1025

"The attributes of this medium are very different than newspapers. Hence it would be coincidence if the same information and uses were optimal for each. The real competition for CommInS will be CD-ROM; CommInS's only advantage will be immediacy -- e.g. for TV listings, current news, classified ads. Also, perhaps, cost -- but I doubt it."--1038

"Quite true."--1041

"True."--1051

"I don't think I agree. What the system must do is provide better access to the information. Primarily, it should provide more accurate filters and eliminate duplication of articles. I could see a lot more news if I didn't get several copies of MIT basketball scores coming in on my filter line "mit" not (subject: sports), etc."--1057

"Not necessarily. It offers timeliness and personal editing of a newspaper, this might be enough for commercial success as long as the price is fairly cheap. The price should be $2 a month to compete against cable TV systems which have 53 channels for $12.50."--1065

"Absolutely yes."--1068

"This hypothesis is poorly worded."--1072

"Think this true. It is difficult to compete against the relatively low cost and reasonably effective distribution of conventional news (paper, TV, radio). Improved filtering and a broader database (other news sources) might improve competitiveness."--1073

"Probably the major advantage of BCS is the ability to do searches for specific topics. Perhaps a data base system with increased ease of use for helping neophytes might be useful."--1076

"I agree -- the system must offer information not available from conventional sources."--1077

"Yes -- why buy CommInS if it has no advantage over a cheap medium, the newspaper?"--1080

"Easy access seems to be the primary purpose of the system. The availability of high demand information should be developed as the customer base is broadened. There is lots of information out there and there is more being gathered each day. There are always people who want that information. The problem is access to that information. Not all of the people want all of that information at the same time. What is the philosophy and reality of information handling? Within the last year a symposium of the Irish Computer Society was held. One of the salient points made by the key note speaker was that as there is so much information available it would be futile to disseminate it. Therefore its use and access must be limited. The Royal Mail of Great Britain will sell a CD-ROM chip with its entire data base of addresses of Great Britain for L3,000. Makes a nice historical document. A colleague of mine is editing a book on British Medieval Archaeology and Landscape Studies. I am organizing the modestly comprehensive bibliography (presently chewing up the better part of two high density disks). Our intent is to have the ability to update, cross reference and search. Oxford University Press has agreed to publish. But insist that the bibliography be kept solely on fiche."--1084

"For commercial success BCIS must offer a unique product, beyond news, aimed at a specific market. It seems premature to offer the service to the general population."--1086

"This is what I would like to see, although I don't know whether it relates to commercial success. Those sports stories might net you that."--1087

"Agree. Advertisements must be included and classified for easy searching."--1092

"The hassle factor (or hard disk wear and tear) of tying up the system makes people nervous after novelty wears off. Access to databases or hard to access information, even if commonly available, would get people over the 'hump' of starting, or get them to continue."--1096

"I agree. It will be difficult to convince people the Boston CommInS is worthwhile unless it truly proves to be a new and quite useful tool. Otherwise, it is difficult to argue that a newspaper is not easier to read and use for all applications."--1098

"I continue to think that the WSJ would be a key addition to the overall CommInS."--1100

"CommInS is easy enough to use -- mass appeal, in my opinion, would require an entertainment aspect which would in all likelihood compromise the system. I would tend to liken CommInS to the sets of encyclopedias that gather dust on innumerable bookshelves -- they get used only by those who have a genuine interest -- this to me means a business/technical/professional user."--1105

"True, particularly the system should be designed to provide up-to-date faster than conventional newspaper. Additionally, features such as using the system as a means of gathering data base information such as selected stock prices, prime rates... etc."--1106

"I definitely agree. In today's business world the use of personal computers is rapidly rising. It would be fair to say that a large percentage of all businesses (almost all large businesses) will have personal computers available for employee use. A number of major insurance companies already use computers to reduce paperwork. A system like the CommInS system eliminates paper and offers easy access to newspaper information. I could see it (with a few extensions) offering other types of business information in an easy to use format."--1109

"The larger the database the better the system."--1110

"I do not see CIS in the commercial environment. The information required is not of the type suggested to be included on the system (trade journal, dailies, stocks and bonds, etc.). I see CIS as primarily a home/academic service, for those of us who like to be current on specific topics. If CIS did try to provide access to information offerings, it would provide services not available at the MIT libraries, and be competing with on-line services such as the Source, among others. I'm not saying it cannot be done, but it is unlikely. CIS should be a community information service, and to appeal widely [it] must provide community information."--1112

"I perfectly agree. A newspaper is still cheaper than a computer system, and people are accustomed to newspapers. To market CIS, you should emphasize its timeliness and its unique features. I still believe that providing relatively recent (like within the past hour or so) business quotations and news will appeal to the stay-at-home investor who is dabbling in the stock market. Pick on similar services that a newspaper can't fulfill."--1116

"I think the very fact that it affords the user at present the capabilities to receive this type of information at all is definitely marketable."--1118

"Yes, I agree with this philosophy and cannot express strongly enough my objections to any attempt to censor or restrict access to 'untampered' data bases."--1119

"Ease of access is critical over a good search function that's easy to use (which you are approaching) is essential."--1121

"I disagree. It's a great product as is. I don't believe you can under price or be competitive with a fifty cent paper!"--1124

"Both of these hypotheses are correct. I discussed these matters at length in my last essay so this will be a short reply. Number two is correct because newspapers are a cheap and efficient information source that are very user-friendly. You only need to be literate to read papers, plus they are lightweight and portable. The BCIS technology must offer more -- both a broader base of information, plus a research (back issues in the database) capability. Thus, I think both hypotheses are correct. For more detail, see my January questionnaire."--1126

"Timing is key -- it would be useful to wake up to updated information. Most papers are at least 1/2 day behind, so BC could have a key advantage in being up-to-the-minute."--1127

"I agree. For many businesses, buying this product might be more attractive if they already had the computer hardware and were not using it 100% of the time. Then, for a modest investment, they could have this wonderful specialized access to subjects relevant to their business without the expense of a dedicated computer. As the system stands now, I don't think businesses would buy the computer to use it."--1130

"Yes. Access to specific information via more restricted query language is essential. No one wants to pay for irrelevant catches. High demand and measurable transaction information such as job and housing offers could be paid for by advertisers."--1131

"We, the educated and affluent of Western Civilization, are experiencing information burn out as evidenced by Maalox sales. Other databases (a directory of which weighs 10 ozs) are as near as my 9600 baud modem as far as my Visa card will stretch. I have not fully exploited them."--1134

"As the system operates now, only people with special interests and or special skills would want to go to the bother of learning how to use the system. Unless the system were to become accessible to people who don't know Boolean logic (to write filters), I would have to agree with the hypothesis."--1137

"True, Boston CommInS system must be as easy to operate as paging through a newspaper."--1138

"True. It must offer something new, different, more, etc."--1141

"True. It's ease of use, cleanliness, directness, ability to capture information of value to meet one's needs are important consideration and positive factors for commercial success."--1144

"I have no idea."--1148

"For commercial success, the CommInS must supply access to information not readily available elsewhere. Newspaper articles generally have a short half life of usefulness and so are less likely to provide 'valuable' information. Magazines and books and papers are more likely to provide such information (but of course in the case of papers and books, may not be available in electronic form). Ease of access is rarely an issue, but I don't mind access being a bit tricky if help is available and I can guarantee that I will get something for my money. Spending time and effort to get a 'sorry no matches' is frustrating."--1150

"Probably true. I'm not sure how, exactly, the system could do this, as I am about as far from a business person as one can get. I don't know if there's really a user group in business for the sort of 'in-between' database; it seems to me that serious users would already be tied in to high-powered commercial databases featuring specific information they want. Possibly work out joint arrangement with such sources? (Note that CompuServe now offers some of Dialog's database for outrageous extra fees)."--1153

"Access to archival information is a VERY strong drawing card and would surely help sell CommInS. However, I think many new lovers will buy it for the IN DEPTH information it offers on current subjects."--1160

"True, less convenient than newspaper now; thus need some selling point."--1161

"This is true and I think, especially true is the need to go beyond the conventional newspaper offering."--1162

"The information isn't valuable enough to justify it for my office to pay a large amount for it, but if I could justify it, reasonable fees could be collected thus making it a commercial success."--1163

"This would be extremely beneficial especially Business Week, WSJ, etc. and is probably needed for widespread business use."--1165

"What does this mean."--1168

"I agree; some bulletin board like features (with the filter to route voluntary offerings to interested users)."--1173

"Need to fine-tune the filter concept to cut down on capture of irrelevant articles, duplications, advisories, etc. that clutter up the collection. Then add graphics, headlines (larger type), and a large number of sources. (NYT and AP are but a starting point). If possible, add interactive capability to talk back/query/comment to the sources, i.e. writers."--1174

"A news system is fundamentally limited by quality and quantity of its news feeds. There is a large amount of information

flowing through networks such as Usenet or ARPAnet. It is important to be able to glean the small fraction of extremely useful information from the torrent of megabytes flowing through the network mailing list. 'The News' in a front-page headline sense is important, but the real problem is dealing with the torrent of information on corporate private, semi-private, and public networks."--1178

"Not necessarily. The system's ability to collect articles on specific topics is very useful. If more newspapers and news services were added the system would probably be attractive to many people. The cost of the system is obviously very important in determining what must be offered to make it attractive."--1181

"General agreement -- must go after specific market segments and cater to their needs."--1184

"Both criteria are a must in addition to low monthly flat fee with local access because of the established clientele of other providers. Provide a continuous data stream over a telephone line which you would use filters to select topics/subjects. Topics/subjects need to be more discrete and not overlapping unless you are tracking data by company product and industry. In the commercial world, the information is used to make money."--1187

"This hypothesis is couched in too much jargon to be easily understood. Try again next questionnaire using more precise language: 'beyond the realm of conventional newspapers', 'high-demand information', 'information offerings'?!"--1188

" 'high-demand information' and 'easy access' and 'information offerings' need to be specified."--1192

"I'm not entirely sure what you mean by this. You might want to prepare an outline of your views of what the key characteristics of newspapers are vs. what those of the CommInS system are, place it in a future questionnaire and let us react to it. I can say, though, that since CommInS is notably inferior to newspapers in some important respects -- primarily involving portability and browsing characteristics -- it had better have some very significant advantages in some other respect."--1195

"Depends on price-to-volume relationship sought by vendor. A small market exists for very timely information, e.g. stock prices cf. Lotus's similar project. A huge market exists for cheap information, the economics of which analogize closely to the early days of telephone. The prospect of technological merger of broadcasting and telephone will make antitrust regulators nervous, hence opportunity for third party, provided adequate financing can be secured for large-scale high entry cost. A federal government guarantee might be sought. See Selwyn, Prospects for an Information Utility (1968)."--1197

"I guess so."--1201

"I don't feel very qualified to discuss the potential for commercial success of the service. I am not a businessman; if I were I would be owning a television station instead of writing and producing for one. Based on my experience working for a public affairs program that covers a different news topic in depth every weeknight, though, I can assure you that your service would be most welcome if it provided a kind of NEXUS/PLEXUS research link as well as the latest news, quickly filterable and selectable by category. Newspapers can be browsed much more quickly for the latest developments on some topic than can a computer -- this I call the 'horizontal' approach to information-gathering. However, for the 'vertical' approach, that is, taking a topic and burrowing into it, backward in time and in depth for related developments, nothing can beat a computerized service. And it is this vertical background kind of information-fill that television shows are especially interested in when doing a story 'in depth'. After all, everybody knows that such-and-such a story happened today; but who knew that, ten years ago the same thing happened in Tuscaloosa or that four times out of seven, it always happens to a guy named Fred? Believe it or not, this is the kind of information reporters looking for color would dearly pay for."--1204

"Yes, classifieds should be accessed specifically as needed. One should be able to pay for as needed example: (one month of real estate classified) to look for a house in a specific area at a specific price etc. or individual investment tracking (your personal stocks). There should be access to trade or professional publications as needed. It would be highly successful if one could specialize - a dentist reviewing all dental publications etc."--1205

"I think all that the program needs to do for commercial success is to keep cost of use low. If cost is low, business, professional and home use would be attractive so customers would be numerous, in turn permitting costs to be low. I can't find all articles I know were in NYT's on the database, thus, if it is not a complete record of what is published, you must

take into account that business and personal budgets will continue to have to support buying hard copy. Note: I didn't take this into consideration when answering cost questions last month, but was reminded when I couldn't find some major articles from December on the database."--1206

"I agree with that statement and it is possible to create a market for information that can be updated as regularly as the Boston CommInS system can. One problem now with on-line databases as well as information now being sold on compact discs is timeliness. The Boston CommInS system should examine needs of information consumers to see what the needs are for current news as they are being written and then broadcast it."--1207

"Agree. Newspaper wire services do not carry detailed enough info to satisfy most serious commercial applications. However, the CommInS should have the ability to pick up relevant information of very narrow interest while protecting the user from the background information clutter."--1208

"Yes. I'd like to be able to access other information sources via the CommInS system. I see it as serving a different role. I don't see it as a replacement for newspapers but as a useful filter. It is the filter that is really most useful to me. It finds what I would otherwise miss."--1209

"To make it work (if possible at all) must make the equipment inexpensive, simple to use. Must format general information more attractively. Must give many more data bases and good search capabilities - both for home and business use."--1210

"True. To be a commercial success, CommInS will have to be similar in cost to a newspaper, offer more information and have easier access (automatic unattended laser printing)."--1214

"Agree. The system provides a way to get specialized information to filter the amount of information the user needs to absorb. Commercially, this could pose a problem in terms of advertising, although obviously advertising is not the only means of providing the service, though it does lower the costs to the user."--1215

"The kind of system would be great for MD oriented medical information (e.g. 20 medical journals full articles and abstracts transmitted)."--1216

"The main (possibly only) significant advantage is the access to very specialized forms of information. Since a user can select information on an esoteric topic without reducing the general appeal of the system to a broad audience. With graphics, this system could easily supplant special-interest magazines."--1217

"This is true. A service that costs more [than newspaper] will be expected to produce. Some values, such as up to the minute stock quotes, etc. might justify the cost. Huge research-type databases of published sources might also help."--1218

"True. Impossible to beat conventional newspapers. Must push advantages such as ability to weed out very specific information from HUGE databases, report unpublished news, unusually powerful editing/databasing facilities for information."--1219

"Most computer-based information systems provide access to specialized knowledge bases, and clearly there is a demand! Ease of use is a major component in the availability of information, especially on a mass basis."--1220

"First of all, the user interface has to be very simple -- two key strokes at most. Secondly, the search mechanism has to be refined by someone who is an expert in the field, and finally, many more sources have to be on hand if the system is to be competitive."--1222

"Yes, it won't replace the newspaper -- newspaper is much more convenient for general news, current events. System is good for special interests, it needs access to specialized databases."--1223

"Yes, I agree. If it is only a news source, I don't think it can compete with newspapers or TV. But as an information search and retrieval system, with other than NYT data base, I think I would find it very useful."--1225

"The Boston CommInS system has the potential of becoming a very powerful media of the future. To limit itself to the realm of the conventional newspaper would be stopping well short of the full potential."--1227

"Probably true -- this is what I meant by suggesting that background information (encyclopedia) should be available. If the system were offered to me for a low price (the price of a newspaper), I would stick with it for home use. At a much higher price, I would drop it. For business use, I would want something more than 'just' the news. Say there is a fire in a South African manganese mine, I'd like to be able to ask the system how much that mine and South Africa contribute to the world market, who else produces, price histories etc."--1228

"False. Other information systems are available expanding the data base will increase complexity."--1229

"I agree."--1234

"Yes, my biggest frustration is being limited to 'high-traffic' news. If your bandwidth would support a wider array of material, I think business interest would go up sharply. Things I think people might pay for: 1) Government agencies getting information out to specific businesses, e.g. banks. 2) Manufacturers (e.g. drug companies) getting information out to retailers. 3) Exporters keeping tabs on news about specific foreign countries."--1235

"Absolutely. It is not enough to offer the same information in a different format, especially if that format is not particularly easy for a computer novice. The range of information available through system such as this one must be broader than that of conventional newspapers, and it must be significantly easier to select information of interest without being overloaded with non-pertinent information. If these two conditions are met, I believe that a similar system could enjoy a moderate to large degree of commercial success."--1240

"What is high-demand information and information offerings? Certainly, the more information that can be made available through the system, the better it will be. Could graphics be added?"--1241

"I think this is true, but the real challenge will be making the filter setup simple enough so that this system can compete with CompuServe and such."--1242

"I agree the hypothesis #1 is true. Today with so much information available to the individual, the faster and easier access that he gets to the information that he desires will make him or her more successful in both business and personal life."--1243

"I view CommInS as an inexpensive and relatively convenient alternative to on-line databases such as Mead Data. It's great not to have the pressure of the connect-time charge hanging over your head."--1244

"I agree, especially in the area of ease of access. A user should be able to obtain condensed reports on specific query lines."--1247

"Do you think of the service as parallel to newspapers? It seems to me that the new technology should be an occasion for reconsidering the user and distribution of information from scratch."--1248

"I can only comment for myself; the CommInS system would be well worth equipment investment and significant monthly fees (~$1+/day)! I only wish I could use it! I find other resources short of Dialog, etc. of marginal interest; the news search feature by interest profile seems invaluable to me!"--1251

Please comment on these two hypotheses about the the future of the Boston CommInS technology:

Hypothesis #2: Electronic newspaper publishing is not a substitute for the newspaper; it is a supplement. Newspapers have browsing capabilities not shared by the CommInS project. For the general population with modest needs, newspapers are likely to remain the cheaper information source, at least for the near future.

"Yes, unfortunately the equipment is too expensive. Even the monthly usage charges would be more than a newspaper would cost." --1005

"True! The system is great for capturing articles of particular interest, but when I read a newspaper, I read articles that I might not read using the news service. Also, the news service does not have a mechanism of 'read me' as an attribute to an article. A newspaper has 'read me' attributes by position of the article and the captions heading the article." --1006

"This is true because of the number and use of PCs in the home. This, along with a cheap PC, could become like what Visicalc and 123 did for the PC years ago. Graphics and color within the CIS structure could greatly speed the usage of the system. This would bring it into the scope of what Videotex is doing." --1007

"Yes. People want someone else to tell them what news is important." --1011

"I agree on all points. Who is going to take CIS on the 'T'?" --1013

"This reflects my belief. However there are a lot of supplements today -- the radio news on the hour, TV?, news?, magazines, local papers, group/technical newsletters, mail to 'occupant' and targeted mail to zip codes or rented mailing lists, etc. CommInS acceptance is (greatly) economic (costs and PC availability) but also value added/time saved. Your filter, updated by me when I wish, is unique and has value, as does the ability to collect information as I sleep or work, and then review it when I am ready (vs '6pm' news or 'morning' paper,etc.)." --1019

"True." --1021

"True. For non-specialists, this system adds to information overload, rather than reducing it. The key, is to sell it as a supplement but the thing it supplements is the 'editor' function. Sell it as a series of editors you don't get on a regular newspaper. Food news when you want it, not when they want. Most people would not know what to do with an AP wire in the house. By the way, can we get stock prices for selected stocks on the wire? I put in text duplicating a stock's acronym and I get nothing. Question IIIa: Why 20% reduction? Electronic publishing will not replace newspapers because 'editing' the news is a skill. I believe maybe 20% of the reading public will welcome the chance to select their own news. The more canned the news electronic papers present, the greater their success is likely to be. At the same time, I think electronic publishing will change the kinds of newspapers that are available. Printed papers will tend to be either more specialized (e.g. Banon's) or more general (e.g. USA Today)." --1025

"Yes! Computers are nowhere close to the convenience of paperbacks, magazines, and newspapers for casual and convenient reading." --1038

"Very true. Maybe by 2000 we'll start to see major shifts to online reading." --1041

"Untrue, as articles can be stored locally, for later, retrieval. Also modem access to MIT's mainframe allows later use." --1051

"Absolutely true. Also, I can buy a copy of WSJ in almost every city in the world, but I have to turn on my computer, wait a while and then look at this system. Also, a fifty cent newspaper every day will seem cheaper than $15 a month or $180 per year to most people." --1057

"True, but TV has replaced lots of movie going. I think what will happen is that a few papers will become national newspapers, local newspapers might become even localer. The general population will have a choice of different type of national newspapers, with regional sections." --1065

"Not necessary -- I imagine that a CommInS type service could be very inexpensive since there are fixed costs to broadcasting and a very large number of people could use the service." --1068

"There is no reason electronic publishing cannot be a substitute for newspapers if it were priced competitively." --1072

"Agree. Browsing is important. Also, unless a service provides new sources inexpensively doubt that people will use it even as supplement." --1073

"I agree strongly -- the browsing feature is a major advantage not only of newspapers but of print libraries as well. Also, the quality of graphics in newspapers and magazine is still better than inexpensive PCs." --1076

"Agreed." --1077

"Absolutely! CommInS is not geared for Joe Workingman who spends twenty-five cents on the Herald to read on the train. It's aimed at yuppies and wall streeters who like expensive toys." --1080

"Newspapers will always be around. The attention span of the average person is what? Ten seconds at best? They are more likely diversions on the train, plane, cab or escape at the breakfast table and office. We get one paper a week, a Sunday one. All I get out of it is the crossword and Bloom County. The purpose of the electronic newspaper and 90 day search is that one does not have to browse." --1084

"Nothing will replace a newspaper read at the breakfast table, on the morning 'T' ride to work or on a coffee break. It's undoubtedly less expensive than headline skimming and reading than electronic newspaper." --1086

"I disagree with the first statement. Electronic newspapers have different browsing capabilities than newspapers -- but the ability to scan more articles and call up whatever depth of information you want increases the reader's options. Right now, newspapers are cheaper, but the are also cheaper than TV sets and people have come to consider them as necessities." --1087

"Agree. Much faster to scan newspaper. Format more familiar. Relationships between articles easier to comprehend." --1092

"True, but cheaper is not the point -- it's different -- browsing (even for ads) is different from knowing that a mention of a name or a place will be caught even if it's buried in an article." --1096

"Again, I agree. But some people -- like those in this experiment would likely want to use this system even if it's only available for a fee. One 'problem' with the system is that it can take up a lot of time when one uses it. There are so many interesting articles that you can spend hours upon hours reading and browsing if you're not careful. The 'problem' is that if you can't afford to take this time, you feel that you're missing something (at least this is true for me)." --1098

"I agree for t<=1995; but after that, who knows?" --1100

"A newspaper is definitely superior for its browsing capability - how often do we find an article of interest dealing with a subject that we were not particularly seeking out. CommInS only captures items in which we have a-priori interests. One could argue that CommInS will narrow our interests where as a newspaper or magazine can expand them. A case in point: I bought an issue of the current New Yorker on the newsstand this past week, I was primarily interested in the film reviews (yes, I could have gotten them through CommInS) incidental to the purchase I notice an essay by John McPhez (a favorite author) about the flood control programs on the Mississippi River. A fascinating article, much new information something I would not program CommInS to 'catch' but which I enjoyed and got much pleasure from." --1105

"This is also quite true but I think it is a very important supplement (enhancement). Many people will be willing to pay for it." --1106

"I both disagree and agree. In its current incarnation, I would say the newspaper has the upper hand, simply because I see things in the newspaper which attract my attention and turn out to be interesting, but would not have caught my attention as they flash by on my computer screen. But this is based on the way the system presents information. An easy to read bit-mapped display version of the system would have more appeal to me. Browsing would be faster by computer and headlines would attract attention." --1109

"I think this is true. But using CommInS and a modem gives you access quicker." --1110

"True. For those with PC's, if CIS can be offered for a price comparable to the paper, most people would probably use CIS in addition to the paper. The CIS has an appeal that papers do not; but CIS will never replace the newspaper due to the fact that papers are put together by editors, who ferret out the interesting stories by doing what the average CIS user can't - reading all the news available." --1112

"Right on the money. At today's technology, there is no way to transmit a full newspaper into a computer system. So why should anyone want CIS when they could buy the NYT or the Globe for twenty-five cents? However, when the technology becomes cheap enough, it may be feasible to transmit articles and video images. That type of service could pose serious competition to a newspaper. Until then, the CIS will just be a supplement to the normal paper." --1116

"I believe it is a substitute. You can browse with electronic news as well and search features are much easier and more accurate because you can be as specific as you want to rather than being confined to the newspaper's level of specificity. You can store articles you want to save without taking up space." --1118

"Yes, I agree. Electronic publishing only useful for specific information queries and has limited use for general 'nonretrieval' browsing." --1119

"Agree - until everyone has high graphics capabilities and alter not widely available characteristics on their PCs - it will be *limited in use for mass consumption.*" --1121

"I share the sentiment in #2. With a newspaper, it is possible to browse the entire paper. I feel as though I've seen everything. With electronic newspapers the information base seems endless. If I set my filter lines to weed out articles, I always feel like I could be missing something!" --1124

"True, newspaper is read to fill time in many sittings -- on bus, in the bathroom, etc. Also, how many paper readers have or will have PCs? Feel free to call to discuss." --1127

"Yes, I agree. You at Boston CommInS seem to focus on this 'browsing' as the most significant difference between newspapers and electronic. There is no substitute for newspapers. To me the greatest asset of the system is to be able to extract specific articles on subjects. Most people (I believe) who browse newspapers are addicted to browsing - they're not looking for anything specific - there's your niche! Provide the specific subject of interest!" --1130

"CommInS won't supplant newspapers until the local supermarket pays double cents on coupons generated from the system." --1131

"Amen. Who wants the Flintstones on a high tech video display monitor!" --1134

"It's pretty hard to beat the bandwidth of a newspaper... An electronic system would require lots of memory or a broadband channel to accommodate the browsing behavior of the average newspaper reader. And I bet I can turn a page faster than CIS can download a page's worth of summaries." --1137

"Possibly, but the system has browsing capabilities and filtering techniques not shared by the newspaper." --1138

"Definitely. Even though CommInS is user friendly, it's not the same as curling up on the couch with a cup of coffee and a newspaper." --1141

"Electronic newspaper publishing is a supplement for the newspaper. However, given today's hectic world, browsing is not a priority. Accessing information to meet the specific interests and needs of the individual captured and organized is definitely a plus. I do not know if the general population with modest information needs would spend the investment. I think it depends on the benefits they would receive." --1144

"Frankly, I doubt that except for rather special interests, such as crime, the system will have wide appeal." --1148

"Electronic publishing as defined by CommInS is not a substitute for newspapers. Newspapers are generally advertising with news stories to separate the ads. The remainder of newspapers is entertainment fluff (Ann Landers). CommInS is not

'worse' than newspapers because of its lack of browsing. It is inferior at the small part of newspapers that it emulates because of the lack of browsing. Modest means is irrelevant. Papers are supported by advertising; CommInS is not (yet?). The niche of electronic publishing is the ability to scan huge amounts of data quickly. But to meet everybody's niche needs, the amount of information available to be scanned must be VAST and all-encompassing. Magazines are a better target than newspapers." --1150

"Agree strongly. Most people do not think in terms of keywords as they browse newspapers. Business folk, yuppies and heavy computer users aside many people still feel more comfortable with a paper or TV news show over morning coffee than a screen of printed information." --1153

"I think this is definitely true. CommInS is almost sure to be considerably more expensive than a newspaper. Also, with newspapers, you can buy information once or twice a week, again reducing the cost. We still read newspapers, although we don't subscribe. Our main news source is the CommInS. I would say that for us, the newspapers supplement the CommInS, not the other way around." --1160

"Maybe false -- if convenient enough to use (e.g. menus, background search overnight)." --1161

"I think this is also true but to be a commercial success Boston CommInS doesn't and shouldn't compete with conventional newspapers." --1162

"Very true. Ease of use and culture are key to newspapers' success. They outlasted TV, radio, etc." --1165

"Yes, my own experience vs the system confirms this." --1168

"I agree. Unless mass produced, inexpensive, high resolution, battery powered, truly portable (pocket-sized), rugged, weather proof, full duplex, satellite transmit/receive capable -- substitutes become available!" --1173

"Cheaper and more convenient too. But for catching and concentrating specific information, especially from multiple sources, electronic methods can excel." --1174

"Until hi-speed graphics come down in cost by a couple of orders of magnitude, newspapers are still going to be very cost-effective. The big win for electronic newspapers is information filtering, not cost or even speed of distribution. Time is a scarce commodity for professionals. Anything that can give access to the huge volume of data available on-line in a selected, controlled, filtered way will glean the useful information from the flood that pours by every day. Research into more powerful, flexible, easy-to-use adaptive filtering will be critically important." --1178

"True. But there are many people who are interested in special, specific topics that do not appear on the front pages of newspapers and may be reported in a variety of newspapers. If the system covers several newspapers and can identify relevant articles, it can be of great use to many people. I find even the limited information available on the modem of great value. I don't use it that often but when I want to get started looking into some topic I find it of great help if I can find even one relevant article -- while sitting at home -- that gets me started in the right direction." --1181

"Strongly agree with the above." --1184

"The newspaper still has its place especially for current events, sports, classified. However, business/stock/bond data available automatically as required, as well as the night before publication gives you a competitive advantage if you have the capability to perform the applicable analysis." --1187

"I agree. However, I think that for most people television will remain the information source of choice. While the information available from newspapers is far more complete, most people don't want/need all the details. It's easier to 'keep informed' by watching TV." --1188

"Quite agree. Leaving aside cost, EP not only is missing browsing capabilities by portability, transportability, sense of community one gets from newspaper. 1) portability: people like to move their newspaper around in their house, from breakfast table to bathroom to bedroom. 2) and to take it with them on the 'T'. 3) Finally, with a 'personalized'

newspaper, there is no sense of shared 'community information', no notion that what one is reading is shared with all others who purchase the paper." --1192

"I agree with this. In my own use, the system has been an interesting toy to play with, but really has not been a viable substitute for newspapers. For most non-technical users, even the 'interesting toy' aspects would be lacking. Note that newspapers are 'cheaper' in a variety of ways: they cost less money, they require less effort for general browsing, the user doesn't need to learn a new set of skills to access the information they contain." --1195

"Weasel words. See issue of Daedalus, Reading in the Future (c. 1985). Newspapers will not merely be supplemented, they will be redefined. Consider Mirror Systems, Inc., Cambridge, Mass., which employs 70-80 LISP programmers; it is a subsidiary of Times-Mirror. Go ahead, sit on your thumb, if you wish. What difference if newspapers [are] cheaper? Again, it depends on scale. If there were no telephones, setting up a call between Boston and Cambridge would cost hundreds of dollars; as it is, public phones cost a dime. 'The telephone is not a substitute for the business letter: it is a supplement...' So what?" --1197

"I prefer the electronic newspaper because I can make a directed search for specific information. Maybe the electronic version should attach a 'newsworthy' quotient to each article, and users can ask for articles meeting this criterion. Or maybe a random article selector could be used ... for times when I feel like browsing." --1201

"Until (if ever) computer terminals become portable, flexible, and absorbent enough to be carried on a subway during rush hour, plunked before a hero sandwich during a lunch break, parked before a bowl of cereal at breakfast, and slipped into a jacket pocket when you need both hands to carry something else, the newspaper will reign supreme as the common-person's immediate source of news. Actually, it might be a mistake to define the newspaper as primarily a news-source: it is far more versatile than that. It is a source of entertainment and companionship, an eye-wash (with its graphic elements) against the surrounding visual assaults of the city, a buffer against strangers, an antidote to commuter boredom, etc. None of these functions are presently served better by a computer, or are likely to be in my opinion as long as there are paper-mills and trees, subways, fastfood restaurants, and people literally on the move. The computer terminal is strictly a 'hands-off-and-eyes-on' instrument of information built for speed not for comfort or the kind of funky, dog-eared familiarity a newspaper provides." --1204

"Yes, newspapers have browsing capabilities... and often one will stop to read an article that is not necessarily in my area of interest. It's sort of a subliminal way of being better informed. Also, pictures sometimes attract one's attention to read. As far as cost, I am not so sure. The price for our home delivery just went up - and we received an apologetic letter that no people could be found to get up at 4am to deliver papers, and that henceforth the papers would be at the end of the driveway. Also, only an answering machine for complaints." --1205

"In part I agree. But I don't think it's a question only of cost. When one reads, one often reads at the breakfast table (this is a comfortable wake-up/social habit), in bed (or other relaxing format) and in other ways which the present-day computer -- even laptops -- do not replace. Anyone who must spend hours at the computer for work knows that body and eyes become tired. So in part, I think that newspapers will never be replaced (or not at least in the next 25 years or so). I don't feel the public has modest needs: it has great and various needs. Any voter should know more than they usually do about politics. But those needs must be met more easily than they are today. The entire computer industry is still in primitive shape. Most manufacturers still don't know how to write instructions clearly or design hardware or software for a general population." --1206

"Newspapers are a cheap source and at this juncture one has to be fairly computer literate to be involved in this area -- have access to computer etc., which not all of us are. But in one area electronic newspaper publishing is superior to print newspapers -- you make the selection -- often newspapers, TV news, and radio select news stories that fits their scheme -- they are censoring many stories in effect -- the war on in El Salvador -- this is not so easy to do when you create your own news based on the wire services." --1207

"I have no difficulty browsing with the CommInS. The bottom few lines in my filter are very broad topics that catch very many items, allowing me to browse. I do not feel newspapers have an advantage in this area. No one will buy a computer just to use the CommInS. It is economical only as an add-on to an existing computer, and then only if priced to compete with newspaper/magazine subscriptions. I do not use the CommInS as a newspaper supplement. I use it as a newspaper substitute. When I have one, I have no desire for the other. (I don't even miss the comics)." --1208

"True. I'd present the system to the market as a tool for catching what one would otherwise miss. To add other information services -- at least browse abstracts of major journals, but I'd not try to offer all their articles." --1209

"Have to agree. You almost have to have a specific use for on-line electronic information (I use Knowledge Index, BRS, Compuservice for specific needs). I would like to be able to search for news items both local and national and international when I want and need to. If the electronic newspaper could always be running in the background (memory board on stand-alone system), it would be far greater use to me." --1210

"I agree. To use CommInS, one must sit at home or in the office with a computer. There is a net time deficit. With a newspaper, one can read it on the train to work or during meals etc. Very little extra time is expended to read the paper. As far as cost, newspapers are greatly supplemented by advertising costs that will be hard to duplicate with an electronic system." --1214

"Highly agree. The power of the CommInS system is the ability to gather specific information. It would be extremely useful in a school or research setting. For the general population newspapers provide price, portability, utility (more than just reading news: coupons and advertising, also it's great for 'paper' training dogs). One thing that is nice about a newspaper that CommInS doesn't allow for is browsing or exposure to topics or articles that may not normally interest you. With a tight filter you may only see specific types of articles. With a newspaper, headlines and photos catch your eye and introduce new topics to your visual filter." --1215

"Definitely true -- the degree of detail possible through your system is not normally required." --1216

"I agree. The CommInS project should not expect to supplant newspapers, but rather other publication's offerings." --1217

"It will be, if the price is right. This has more browsing capability than the average reader (i.e. one without AP wire) can handle. Price, however, will be the deciding factor." --1218

"Absolutely. Cheaper and easier to use." --1219

"The CommInS project is a 'clipping service' for areas of interest. Newspapers do not require specialized equipment for delivery. They also are better suited for advertisers who foot most of the bill." --1220

"Not true. In a newspaper many things are wasted. On Sundays about 3/4 of the newspaper is not read and just plain thrown away. What a waste. The CommInS system is great because I read only what I wish to read; not what the editor of the Globe wishes me to see!" --1221

"The end of the printed word has been predicted for a long time. The problem is that information is of three types - permanent (literature, historical records etc) updated (census figures, market information etc.) and disposable -- weather reports, 'current events'. The CommInS system works best with the last, but people are more apt to want electronic information for the second." --1222

"Exactly right -- see above. But electronic system has one convenience -- it could bring together articles from many newspapers around the country while people only subscribe to one. Then you could compare movie or book reviews from several sources, or collect all the clippings on one event. It would be very useful for public libraries -- save them from collecting so many newspapers." --1223

"I agree. Computers are still hard to use; you don't need Alt-R to read a paper. And useful computers still seem to be expensive. (Even my Tandy 102 with its very limited capability is still, at $399, probably out of the question for many -- never mind the thousands of dollars for a proper PC.) If I were a newspaper publisher, I think I would keep an eye on the technology, but I wouldn't lose any sleep over it. On the other hand, I've been wrong before -- once." --1225

"This is in part true -- newspapers do contain the important browse feature which electronic publishing cannot provide. Electronic publishing, however, has many important features of its own -- information retrieval capabilities are far superior, for example. Nevertheless, newspapers will remain the dominant information source for quite some time, with electronic publishing becoming an important and necessary supplement." --1227

"Agreed. I love the system for aggressive news gathering. What's the latest on Iran and the Contras? Dukakis as Pres.? News (big stuff) around the world? It is enjoyable -- but not relaxing. Sitting with a paper, browsing editorials, sports, ads -- as well as news, over a cup of coffee is relaxing: maybe this is just training. Maybe it is that staring at a CRT is tougher on the eyes. Possibly, since I have only a floppy diskette system, I can't save (and browse) as wide a range of information as I would like -- or as much as I get in a paper. Does this difference in the style of use of CommInS vs. the paper make sense? If not, I'd be glad to try again, just call or write." --1228

"True. Actually newspapers are used for more than news: gossip columns, classified ads, retail sale ads, crossword, weather, comics, local (community) news and social events, TV and theatre listings, obituaries." --1229

"I agree, it will take a long time for people to get used to electronic publishing at home." --1234

"I agree strongly. Hardware costs and software 'friendliness' problems are progressing slowly, but this kind of service will probably remain accessible to only a small fraction of the general public. To build interest, I suggest working through the schools. Supply them with a few special filters that capture news of interest to their age groups. Also, local sports, cultural events, etc." --1235

"I agree. I find that I continue to read newspapers, despite my initial hope that the Boston CommInS project would cut down the time I spend reading papers. Furthermore, newspapers are in many respects easier to use. With the CommInS system you must plan ahead in order to retrieve information. Newspapers may contain less information in a random format, but they are readily available (no planning required to obtain one) and portable." --1240

"I agree. Not so much about browsing, but cost and portability are important. But E.P. is a very useful supplement." --1241

"I agree. No matter how portable, you cannot carry a computer, modem, and telephone (even cellular) as easily as you carry a newspaper." --1242

"True. If pictures are worth a thousand words as they say, I believe that unless Electronic news can provide pictures (documentary, ads... etc.), the newspapers will remain as major source for most of the general population. They provide the simulation and magnetism that is sometimes needed to catch attention of the reader and can be more powerful than just headlines introducing the article." --1243

"I hope newspapers will not be the cheaper information source (not counting hardware). I don't see why an electronically delivered newspaper should cost more than a standard newspaper subscription. I wouldn't read the paper if there were electronic advertisements, classifieds and calendar of events on CommInS in addition to news." --1244

"I agree and believe that the level of writing in the electronic format should be of a higher grade level than that in the ink print edition." --1247

"I think that this is correct. The learning cost and capital investment is still high, and key strokes require more skill than turning pages. Moreover, browsing at 24 lines per look is a nuisance. Therefore, I would guess on hypothesis #1 and I would guess that the product has to be as accessible as Cable TV. Have you thought of reading the service on Cable TV? Have you made any estimate of the running cost of the service? I would guess that it is rather less than the cost of a newspaper -- and that the cost should decrease -- and that the cost of a newspaper will increase." --1248

"I expect that some form of rapid browsing will always be valuable; I know that the process is much less satisfactory for me. Knowing that I am aware of all NYT articles which match my interests would be much more valuable; it's hard to know what the 'general population' will wish to do when it has a choice and the chance to learn what CommInS-like services can offer. I would expect that, given access and reasonable equipment cost, the service will be cheaper and preferable in the long run." --1251

March 1987

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	93	0.00	30.00	190.00	600.00	1440.00	445.87
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	92	0.00	3.00	10.00	20.00	120.00	15.74
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	91	0.00	3.00	10.00	15.00	120.00	11.77
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	92	0.00	3.00	10.00	15.00	135.00	13.59
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	87	0.00	0.00	1.00	5.00	60.00	3.62
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	90	0.00	20.00	50.00	100.00	3000.00	126.04
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	90	0.00	10.00	25.00	50.00	300.00	43.26
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	91	0.00	5.00	10.00	20.00	100.00	17.03
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	91	0.00	2.00	5.00	10.00	50.00	7.67
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day	89	0.00	0.00	1.00	2.00	40.00	2.07
55 I find that the information available is of: little interest--great interest	92	0.00	5.00	7.00	8.00	10.00	6.84
67 Using the system, I feel: awkward--OK--comfortable	94	0.00	5.00	6.00	8.00	10.00	6.46
70 I find the system has: no value to me--some--great value to me	93	0.00	5.00	7.00	8.00	10.00	6.73

72 When looking for specific information, I prefer to: read the newspaper--use the system

93	0.00	6.00	7.00	8.00	10.00	6.89

73 When reading for general information, I prefer to: read the newspaper--use the system

94	0.00	2.00	4.00	5.00	10.00	4.19

81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.

88	0.00	10.00	20.00	45.00	300.00	33.74

93 My interest in the system is: decreasing--unchanged--increasing

93	0.00	4.00	5.00	5.00	10.00	4.99

104 With the system, I feel: less informed--same--better informed

94	4.00	6.00	8.00	8.00	10.00	7.48

129 I use the modem connection for two-way access: not at all--some--every day

88	0.00	0.00	0.00	2.00	7.00	1.30

130 Of this time, I use the two-way features with my modem ___ minutes/day

80	0.00	0.00	0.00	1.00	30.00	1.71

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

58	0.00	0.00	0.00	1.00	40.00	3.03

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

54	0.00	0.00	0.00	1.00	40.00	2.04

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

54	0.00	0.00	0.00	1.00	25.00	1.06

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

52	0.00	0.00	0.00	0.00	5.00	.27

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

82	0.00	0.00	0.00	0.00	45.00	2.70

140 On average, I use the modem connection: less this month--same--more

80	0.00	0.00	5.00	5.00	10.00	3.36

143 For business/professional applications, I find the system: not useful--very useful

94	0.00	5.00	6.00	8.00	10.00	6.01

144 For home/personal applications, I find the system: not useful--very useful

92	0.00	5.00	6.00	8.00	10.00	6.09

150 I find the system: a novelty----a genuine aid

93	0.00	5.00	7.00	8.00	10.00	6.67

151 I think that systems like the CommInS will only be accepted by computer literate people: no----yes

93	0.00	3.00	6.00	8.00	10.00	5.61

152 I would want to own the system: no----yes

92	0.00	5.00	8.00	10.00	10.00	7.16

153 I would prefer to be charged: flat rate----usage dependent rate

89	0.00	0.00	2.00	7.00	10.00	3.85

154 I feel the system could be accepted and useful to the entire population: no----yes

91	0.00	2.00	3.00	7.00	10.00	4.00

I feel the system could be accepted and useful to the entire population: Why or Why Not:

"Not everybody is that interested in computers and news." --1005

"The data captured is not complete enough to encompass the 'entire population'. (Advertising, stock quotes, graphics, etc.)" --1006

"It is very difficult to keep up with all the information these days without electronic help." --1007

"Computer literacy requirements, 'comfort' with this type of system is questionable." --1009

"The Associated Press should be dropped and local news picked up." --1011

"PCs are expensive and noisy, price of system is likely to be high." --1013

"In the same way that radio, TV, an then the VCR all started as technical/expensive and became additional information delivery devices (with the VCR allowing time-shifting and selection; similar to Boston CommInS)." --1019

"The entire population with computers, yes, it would be useful. Probably of limited use to those without computers." --1021

"Doubt anyone would buy a PC for this alone, many will still prefer passive news (i.e. TV)." --1024

"It has to supplement kind of work you already do. People who have to do newspaper searches or clip articles alot will want it." --1025

"Some system with additional functionality and ease of use will get a '9' or '10'." --1041

"As a broadcast only service, it should be very affordable, especially compared to services such as the Source!" --1043

"Convenience of determining subject of information." --1051

"The word is entire. With a large number of illiterates out there, many won't be able to use the thing." --1057

"It's a good idea, it's a natural match between computer's capability and a wire service." --1065

"Must be fully turnkey, special keyboard overlay required." --1068

"Obviously requires a computer, those are not yet in the entire population." --1070

"Some people reject new technology." --1072

"Problem is that system is okay for computer oriented people but I'm not sure about the general public." --1076

"Easier and more relaxing to read the newspaper or watch TV news." --1077

"It's a toy; half the population wouldn't want to pay for it, and many don't have PCs." --1080

"Some computer illiterates would not accept it." --1084

"Because it's swell. Will just take time for people who are afraid of computers. Is it possible/desirable to make a hardware system to read news that doesn't look like a computer?" --1087

"Over time, if consistently marketed." --1096

"A paper will be easier for most people to use if they are not familiar with or dislike computers." --1098

"PCs will become more popular/[unknown word]." --1100

"Faster news (information) distribution." --1106

"Some people just aren't interested in the news." --1109

"It would be useful, but not accepted by the whole population because PCs still have to be accepted by all households." --1116

"Anyone who reads a newspaper would enjoy using the system." --1118

"It serves a very specific need: information gathering. Not something everyone needs." --1119

"It is useful on a personal level, and can gather information on any work related subject. Plugs people into big picture." --1120

"Eventually everyone will be oriented towards electronic information transfer." --1121

"Paper is cheap and convenient, and so are newspapers. BCIS is not cheap and not always so convenient. It must offer more features and ease of use of it is to displace, or supplement, newsprint." --1126

"Large segments don't seek information." --1127

"Many people do not like computers." --1130

"No black box." --1134

"Not in its present form at least; it takes a bit more skill and patience than non-computer enthusiasts would be willing to expend." --1137

"Because it's an alternative high-tech newspaper for fast times." --1138

"Fifteen percent of the U.S. is functionally illiterate. Get serious; IBM PC (or close) ownership and use is an elite privilege and skill." --1141

"You could filter information of your interest and accept it from national and international sources. However, if you didn't have your IBM turned on you would miss a lot." --1144

"Partly for technical reasons (computer literacy, etc), partly because little of the population seems interested in in-depth news coverage. (I should add that my system is keyed only to news reports; there may be other users that I have no judgment about.)" --1148

"I don't believe that the average person is very interested in hard news." --1150

"People in general still feel more comfortable with standard print and broadcast news sources, and do not really seek that much keyword specific information other than local, political, and economic stuff they get easily elsewhere." --1153

"There are many who don't even read newspapers and who don't have computers. I think many will enjoy it." --1160

"Newspaper adequate and cheaper for most." --1161

"If it became much more user-friendly, it could have broad appeal." --1165

"Need to make it a mass appliance, not a PC application for mass acceptance." --1168

"Only useful to people with strong desire to get timely information." --1171

"Unless it were in a system free of mechanism failure (diskless) and did not require a personal computer and cost less than 2 years subscription to a general newspaper -- NYT or WSJ or equivalent." --1173

"Computers and printers take up frequently scarce table space. Newspapers go anywhere and everywhere." --1174

"Practiced usability and acceptance is critically dependent on: 1. flexibility and usability of the filter; 2. quality of available raw information feeds; 3. general usability/learnability of the user interface; 4. cost. I think it is possible to do these things right." --1178

"Most people do not have computers. Most people don't ever read the newspaper." --1181

"There is something for everyone." --1184

"How well information provided by other means (cost), motivation to change (additional features versus cost)." --1187

"Not portable (i.e. physically, not system-to-system); takes some effort to learn to use; requires literacy; requires hardware ($$)." --1188

"(1) Those without PC or terminal couldn't use it. (2) Those without interest in reading news wouldn't use it." --1192

"There are very few products of any kind which are 'accepted and useful to the entire population', and (relatively) demanding products such as CommInS, in its present format, are not among them." --1195

"As is, no." --1197

"It is an information source. It can be used to filter for all kinds of topics." --1201

"If it offers an additional value to regular newspaper reading, live, quick access to background or current stories." --1204

"If hardware and software is easy it could. Still, children and older persons are likely to feel more pressing needs elsewhere." --1206

"Provided people were interested in information of some sort and given the cost not becoming outrageous such as many on-line databases are." --1207

"Not until computers are as widely dispersed as TV sets." --1208

"Newspaper, radio, TV deliver what most people need (or think they need) for general information. Few persons look for or need specific information on a subject." --1210

"Some people don't want to make an effort to get information. They like brainless methods like TV." --1214

"Would be useful for professional publications." --1216

"Requires too much activity and preparation on the part of the user, relative to the average newspaper." --1217

"Nothing is useful to the entire population." --1218

"(1) Cost; (2) competitive vehicles." --1220

"Because it is much faster than waiting for the newspaper." --1221

"Entire population does not need up-to-the-minute information." --1222

"Only useful for current information on specific topics; articles repeat each other too much for general information." --1223

"Despite my having it on 24 hours a day, my wife has never consulted the system, though she has read articles I've printed out for her." --1225

"The system has great value and potential as an information resource to the entire population." --1227

"Many people don't care about news at all. Others don't (or don't want to) own computers." --1228

"Better informed." --1229

"The idea of fast information is useful to those who can act on it (put it to good use)." --1232

"I think that people should have as much information as possible, but they would have to want it." --1234

"(1) Computer technology is years away from being 'easy' for the general population; (2) f[illegible]e have the intensity of interests to warrant the extra effort, not to mention costs." --1235

"Too difficult to use for the average person." --1240

"Not everyone wants a computer at home." --1241

"Many will never be comfortable with computers." --1242

"Because today there are still too many people that can't use the computer or have no access to one." --1243

"Too difficult to use, not enough interest in news, costly." --1244

"Limited number of computer literate readers." --1247

If the CommInS were commercialized: I think that these two groups would be least likely to own and use the system.

housewives
--1005

people in the arts (use professional magazines instead)
those who prefer graphical and statistical representation of data
--1006

afraid of computers
not interested on news
--1007

garbage collectors
dishwashers
--1011

poor people
apathetic people
--1013

housewives

students
--1019

non-computer owners
very young people
--1024

students (if you mean on a regular basis)
housewives
--1025

children
--1051

TV watchers
computer phobes
--1057

housewives
visual artists
--1068

blue-collar
computer illiterate
--1072

general public
--1076

general public
--1077

laborers
house-spouses
--1080

trades (carpenter, builders, etc)
non-IBM compatible user
full time parents
--1084

poor
frightened of computers
--1087

women
blue collar types
--1096

'blue collar'
--1098

blue collar
elderly
--1100

laborers
farmers
--1106

blue collar workers
people who don't get newspapers
--1109

blue collar workers
low education services sector workers
--1116

low income
--1118

those with easy access to a good library
those with similar service at work
--1119

senior managers
--1120

older people
non-news oriented people
--1121

Boston Herald readers
computer phobics
--1126

blind
homeless
--1127

engineers
stratagists
--1134

street people
illiterates
--1137

lower income
--1138

managers
--1141

contractors
plumbers
--1144

poor people
computer illiterates
--1150

blue collar folks
general public over 40
--1153

people who don't care about news
children
--1160

students
--1161

blue collar workers
home makers
--1162

CEOs
secretaries
--1165

Cavaliers
The LA Clippers
--1168

non-computer people
--1171

children
adolescents
--1173

those of limited means
frequent travellers
--1174

die-hard computerphobes (some don't want to use a telephone either!)
those who can't afford it
--1178

dancers
MBTA drivers
--1181

satisfied clientle of other systems already provided at work
--1187

working class
black/hispanic/minority
--1188

PC games-players who don't use PC for work
news consumers who like TV news
--1192

everyone else
--1195

unemployed
those who dislike gadgets
--1197

older
non computer literate
--1201

computerphobe
--1204

people without computers
--1205

children
old persons
--1206

people without interest in computers
people with no interest in news and information
--1207

computerophobes
illiterates
--1208

homeowners (general public)
--1210

businesses
busy people
--1214

the average consumer
--1217

housewives
children
--1218

consumers
brokers and others who have capability
--1220

small businesses
general public
--1222

scientists
artists
--1223

those who don't already own PC's
--1225

blue collar workers
non computer literate people
--1227

college students
people who have no interest in news
--1228

housewives
blue collar
--1229

students
--1232

illiterates
blind people
--1234

consumers
people who are uncomfortable with computers
--1235

non computer professionals
commuters
--1240

computer illiterates
--1241

people without computer experience
--1242

illiterate
people without access to personal computer
--1243

general population
video addicts
--1244

blue collar workers
homemakers
--1247

If the CommInS were commercialized: I think that these two groups would be most likely to own and use the system.

computer freaks
stock brokers
--1005

business professionals
students at universities
--1006

computer literate

professional types
--1007

reporters
professors
--1011

rich people
people who follow current events
--1013

managers
financial analysts
--1019

people dependent on news for business
--1024

academics/writers
stock analysts
--1025

people with PCs
--1043

disabled
professionals
--1051

news freaks
computer freaks
--1057

computer hackers
press officiers/public relations
--1068

organizations which set out to be very current with news, i.e. ahead of
newspapers;
people who want the system to compartmentalize the news
into their special interest categories
--1070

students
professionals
--1072

researchers/students
business
--1076

hackers (just interested in novel uses for their computer)
special interest clipping service
--1077

hackers
brokers/investors
--1080

researchers/academics
upper management in industry
--1084

people who like computers
large businesses
--1087

business-people
PC-hackers
--1096

educated
white collar
--1098

academics
lawyers/politicians
--1100

academia
professionals such as lawyers, brokers, engineers, scientists, etc.
--1106

home computer owners
business professionals/managers
--1109

professionals
upper middle income families --1116

professional people
students
--1118

business people
academics
students
--1119

public relations professionals
technical managers
--1120

existing PC owners
news oriented people
--1121

specialized interests
--1125

news junkies
people who use their computers a lot ('computer literate')
--1126

academics
researchers/journalists
--1127

business
education
--1130

introverts
iconoclasts
--1134

computer enthusiasts
financial professionals
--1137

investors
--1138

academics
--1141

teachers and government officials
financial consultants
--1144

people who are interested in media critique

people who find media coverage inadequate
--1148

analysts/reporters
hackers
--1150

information professionals
trendy types & academics
--1153

large businesses
college profs (PoliSci, etc.)
--1160

researchers
business
--1161

educational inst.
professional people
--1162

corp. librarians
PR/publicity types
--1165

Celtics
Lakers
--1168

marketing professionals
researchers
--1171

professionals
executives
--1173

researchers
news buffs
--1174

professional computer users (not necessarily computer programmers, but
including professional writers),
advanced home computer users
--1178

people with poor vision
news junkies
--1181

business/finance (stock/news)
general interest/sports depending on price
--1187

yuppies
aspiring middle class
--1188

PC users for work
news consumers
--1192

computer addicts
news addicts
--1195

managers
professionals

--1197

small businesses
information hungry younger people
--1201

people who cannot have delivery of NYT;
people who have an extra computer standing around that can be kept on all the time
--1205

busy
professional
--1206

business people
information-research people
--1207

computerophiles
consultants
--1208

businesses
students
--1210

yuppies
libraries
--1214

professionals needing timely information
--1217

hackers
businessmen
--1218

PC hobbists
electronic mail
--1220

home
business
--1221

inhouse news services/hospitals/corporations/libraries, groups needing specific up-to-the-minute information (coin dealers, jewelers, etc)
--1222

businessmen
journalists (sports writers?)
--1223

computer literates
other PC owners
--1225

businessman
professionals
--1227

business people
news addicts
--1228

business
white collar
--1229

financial analysts (market watchers)
business people
--1232

news junkies
students
--1234

people who are already information users (e.g. BRS and Dialog users)
people with strong professional interests (e.g. researchers, top
lawyers and medical specialists, certain business people)
--1235

business mangers
news analysts, writers,
people who subscribe to cultural events (and want to keep up to date)
--1240

private investors
self-employed
--1241

home computer enthusiasts
computer pros
--1242

college-educated
people who have no time to read the newspaper
--1243

journalists
researchers
--1244

business
students
--1247

Do you feel that the success of the Boston CommInS will be determined by market needs or by its technology? Please explain.

"Market needs. You need to provide information that is better and more up to date than other sources. Also, you have to filter the right information out of the whole." --1005

"Definitely by market needs. The success of the Boston CommInS will rest in the Professional Business World where a conservative attitude prevails. An example would be the class of PC's [sic] used today. Most use prc lucts that are 2-3 years behind current technology, even though today's 'breakthroughs' are better, faster, and more reliable. The same attitude will be the environment for the system. A solid, proven system will be far more successful than one using 'tomorrow's' technology today.

Granted, there are those (like myself) who relish the thought of new systems periodically, with new features and improvements, but this will be a small percentage of the marketplace.

It should be noted, the type of people in this experiment do not represent those that would make the Boston CommInS a great in the respect of the mass market." --1006

"If enough people are using PCs at home when CIS is offered as service and the PC's price comes down enough it should be marketable. If it could be sold with an inexpensive terminal to use this could be another strategy." --1007

"The technology has developed to the point that success will be determined by the usefulness of the information available." --1009

"I think the broadcast technology is good enough to be a success. The big remaining questions for success are: (1) The nature and presentation of the information. I really think that a successful system will involve publicity and editing material specifically for this unique medium. Publicity style should be coordinated with the user-interface provided in the home. (2) Price." --1013

"Its technology will enable it to create a new market (service) at a low cost due to radio broadcasting. Up until Boston CommInS, I thought that we would have to wait for the telephone system to provide homes with wide bandwidth, multiple services via optical fibers -- however broadcasting and user modifiable filters in the PC give this now.

As discussed in previous questionnaires -- the cost, information provided, numbers of PCs in homes, multitasking, and the user interface will determine initial commercial success and rate of growth." --1019

"I am familiar with one market: that of a specialized consulting firm which looks stupid if we are not completely on top of the latest noise in our field. When the Boston CommInS technology has the ability to do a daily/weekly of monthly search of magazines and newspapers, which selects the articles I want -- with very few not on the specific topic and very quickly (so I don't have to keep my computer on overnight), it will be of great utility to me. Until then, I will rely on colleagues and my ability to bluff." --1021

"I feel market needs will be the deciding factor. Most people can get news on a daily basis from papers or TV and feel up to date. This technology is fine and fun to use, but in most cases it will probably provide too much information rather than not enough. I honestly don't think it will appeal to the large segment of the population unless it's extremely inexpensive (less than the Sunday Globe)." -- 1024

"This is a badly worded question. I assume you mean, is the system likely to create its own market because of its unique and attractive technology -- an electronic newspaper. The answer is obvious -- the success of the system will be driven by market needs. There are already other systems that sell specialized news. Your system has to be more convenient and/or cheaper for the existing market. It does have some market advantages from what little I know of other services. Things that might help -- add raw stock market listings; add AP to memory." --1025

"Both. There are needs but they must be exploited by appropriate technology." -1041

"Clearly it will be both. The market is there, and once the technology is ready, this thing will sell and have an impact. It will sell because it combines the speed of the radio/TV news with the flexibility of reading a newspaper.

Two or three item of technology are required for this to really take off: 1) The receiving end machine has to be more like an appliance (i.e. as a TV). Easy to use, crash-proof, no fan, ... 2) Software needs to have better discrimination features: better accuracy in filtering and fewer duplications. 3) While we computer jocks can run the program, I am not sure everyone will be able to!" -- 1057

"The technology makes the market. At this time the system is a replacement for a newspaper, when the system is expanded and integrated with other software, it will take on a character quite different from newspaper, at this point it will make its own market." --1065

"Both. The market is already there. Tech[nology] must be very inexpensive to own and operate, turnkey-like -- no harder than using a microwave oven or washer/dryer. It should cost no more than a newspaper sub[scription]." --1068

"Unfortunately, mainly by market needs. Minor improvements in the man-machine interface I'd like but the service is too good for me to be deterred by such items. More technology -- probably to widen the market, is OK like CATV distribution but not OK, and lessens the attractiveness of the service if you go to a (for example) $200 chip on a CATV to use the TV with very limited keyboard selectivity.

The problem I think is .) not enough mass market if limited to PC owners 2) not enough capability if you don't require a PC and disk. Key probably is to go after the non-mass market. Is this 1) organizations who'll pay a lot 2) affluent consumers who may discard its use after 1st blush of gee why [unknown word] is good." --1070

"Both. If there is no need, not even the best technology will succeed. If the technology is bad, it would not meet the market needs and people would be unwilling to use it." --1072

"Market needs! Given that newspapers cost a small amount and also have browsing feature, the Boston CommInS system will have to address some market segment willing to use it. Perhaps if a system similar to the French experiments with mass distribution of terminals were used it might be more acceptable to general public." --1076

"Market needs. I don't believe the general public will be interested in this type of system. I think special interest groups, i.e. newspaper clipping services, would use the system regardless of the case of use, etc., but no matter how advanced the technology, or how computer literate, the ordinary person would have little use for this system." --1077

"It'll be determined by the ability of its technology to address a perceived or created need. At the moment, it does not fill a need for me. It is fun, but has no information I can use in business, because I'm not supposed to disseminate the data, nor keep a hardcopy. When I can use it for advancing my company's knowledge, then I'll 'need' it. Meanwhile, it's just a gimmick.

Furthermore, if CommInS can only be run dedicated, not background, and since the two-way feature does not work for me, the technology as I see it has not advanced since the start of the experiment. CommInS is still very much a test product." --1080

"Market needs primarily. The technology was necessary to develop the original product and can constantly be improved, but won't be the primary attraction to the user." --1084

"By market 'needs' -- or desires: it's fun! This counts, even for business use Technology will come along." --1087

"Market needs (or preferences). Technology is already adequate, and B.C. will be successful if and only if it reaches beyond those who buy it solely because of its 'high tech' aspect.

People who (a) understand it, (b) have limited time, travel alot who are intellectually/current events oriented enough to want to keep 'tabs' on various subjects covered in available media, will have it." --1096

"I think market needs. Already the system is technologically sound enough to provide decent service. It is useful, interesting, etc. But if there is no need in the market, how could it be successful in that sense? (You need to define 'success' better.)" --1098

"All the books on starting a business say the market is opened and made available by the technology. The technology is a necessary condition, but not a sufficient condition --" --1100

"Market needs because the existing technology is adequate for commercialization." --1106

"I think that the success of the system will be determined by market needs. There are many new technologically advanced projects that are introduced each year, but fail to be accepted by the marketplace. The fact that the system requires a personal computer is important since it limits the size of the market sector that could purchase the system. Also, against the system is the large amount of memory which it requires. This further limits the number of people who will be able to purchase it. Nevertheless, there are a great deal of people who would be interested in such a system and they will determine its success or failure. This is not to say that technology has no part in the system. The advanced technology means the cost of the system should be low in comparison with services like Lotus' METRO." --1109

"The success of the Boston CommInS will be determined by market needs initially because its technology certainly is not spectacular. People will want to subscribe to the service because it offers information not normally found in the newspaper or more timely information than could be obtained by the subscriber.

Eventually, when technology has increased to the point that gigabytes can be transferred over the airwaves, then such features as color pictures, quotes from all stock and commodity markets all over the world, short interviews, and future services that combine text and video together will sell. The service will then have an appeal that will cause the general

population to consider subscribing. By that point, the CommInS might be an attractive alternative to the newspaper." --1116

"Both. If people want a service like this, they will pay what it costs to obtain it. The more advanced the technology, the more money certain people would pay for it." -1118

"Success is always determined by market needs. New technology is economically useless unless a wide ranging need can be found for it in the marketplace.

The commercial viability of the system seems promising....if priced right. There is a high demand among business people/professionals, students, and academics for a reasonably priced broad information gathering and retrieval system. If you want to set prices for wide acceptance, then set them at 10-20% of the extortionate Dow-Jones News Retrieval rates (80 cents per minute is absurd!)" --1119

"The success of BCIS at my office is largely due to a discovery of this new capability. The questions to me are usually, 'How do you do that' rather than 'I need this, can you do it'. Unless I show them the BC no one realizes how useful it can be." --1120

"Market needs is dominant as technology has to facilitate--not drive-- demand. The technological innovativeness is useful to the extent it makes existing work easier and to the extent it allows new activities as a secondary goal." --1121

"As with last month's question, I feel that the question posed suggests a false dichotomy, BCIS will become a success only by the confluence of technology and market needs, not by one or the other. Having said that, let me repeat some points I have made before.

As a technology, BCIS is quite impressive. It makes good use of existing hardware (FM radios, computers) and the software is quite well designed. However, at present it supplements or replaces the daily paper, and the modem connection competes with on-line databases run by other companies. If the main services of BCIS is to provide the equivalent of the daily paper, then I don't think it will be a success. Newspapers are very cheap and efficient means of conveying information. For example, I can read a paper on the 'T', but unless I buy a laptop, I can't use BCIS on the 'T'.

The main advantage of the technology is its timeliness and the access to the 90 day database. However, for timeliness the radio is quite good and I can usually wait until the next day for the details in the paper. A 90 day database is handy, but I have primarily only found it useful for catching up if I am a few days behind -- a pile of old papers fulfills the same function. Finally, the 90 day cutoff is too short for scholarly research (90 months would be better).

If you are thinking of marketing BCIS, I think that the range of information services available has to be broadened. Otherwise, you will only appeal to a very small market that needs the news right away, and that doesn't already have the AP wireservice, and the computer-news junkies who like to read lots of news and don't mind reading on a monitor rather than paper. Since I am a news junkie, and I like using computers, I might consider such a system, if it didn't cost any more than a newspaper, but I think I'm in the minority.

Finally, don't forget that your survey set is hardly representative of the general population. Since this is an experiment they are self-selected, and probably represent a tail of the computer-news junkie distribution. If many people reply that the market is there, they may just be projecting their own preferences onto the general population. I don't mean to sound too negative, but I do feel that the technology needs to offer a much wider information base if it is to capture a large market. Of course, it may be that it doesn't need a large market if the costs are low enough, but you know that better than I." --1126

"By definition, success is success in the market if your goal is commercial exploitation of the system. Market success has as much to do with promotion and demand creation as it does with preexisting market 'need.' Who 'needs' a CD player (instead of a record player or silence)? The technology could be incredible, but if most Americans don't read, you won't have much market." --1127

"That depends on how you define success. If you mean commercial success, the market will be the determining factor. The technology is new and offers many opportunities, but even those opportunities are market-driven." --1130

"Market needs. I feel that MIT graduates who have already gone back to the orient will seize the technological lead but will end up having to OEM their black boxes to Emerson or Motarola or RCA or GE to get them into Chelsea households." --1134

"The technology will determine the scope of the market interested in using the system, but the exact size of the market depends upon the needs/interests of the (potential) users.

I suppose you're asking 'where's the bottleneck'? Now, I would say, the technology is the bottleneck. I don't find the system so puzzling, but then again I'm a Course VI alumnus. I think that the system would be hard to learn for people who only use their PCs for applications programs. Make the system easier to use and maybe the size of the potential market will grow.

No one has ever gone to market with an easy-to-use video-tex system, so its hard to extrapolate, but there seems to be reason to doubt that large numbers of people will abandon their daily paper in favor of a monitor. At best, Boston CommInS will serve a small niche market of dedicated information professionals and junkies." --1137

"I think the success of the Boston CommInS will be determined by its technology. The reason being that the service offers almost instantaneous reporting of news and data allowing the user to evaluate the news/data manually or by way of another program ... quickly. It allows a person increased decision making capability in a shorter span of time." -1138

"Both. When PCs cost as little as TVs and are as easy to use, you'll still only reach a small percent of the population. Most people are not motivated enough, or don't have the career incentives, to use such a (valuable!) tool.

You can go two routes: (A) Private market: target business users, more financial data, etc. (B) Public/Educational: work through schools, churches, government, etc. I would much prefer to see you go this route. You won't make as much money, it will be harder to even get funding, but the county as a whole world be better off. Your choice.

Good luck." --1141

"I think that the Boston CommInS project will be determined by both market needs and by its technology. The technology is easy to use, efficient and allows the user to develop a word filter to meet the users' specific information needs. The major problem is the dedication of an IBM PC and the specificity of an IBM 1200 Modem to connect to the database for 2-way information retrieval. If the software could collect the information in a background forum while other activities would take place, it would make this source invaluable. The availability of a two-way system is excellent because one has access to current retrospective records.

Marketing, pricing and the competitiveness of this form of information with news from on-line data bases will be a reality. However, the ability to set up a WORD FILTER far outweighs searching for each individual topic. However, if the receiver is not on, the information cannot be retrieved and that is a drawback." --1144

"Hard to answer, because both factors are relevant. Technology, for trivial reasons -- market needs, in the sense that there are competitors.

The real question will be whether this special mode of access to news meets people's personal needs. The evidence seems to indicate that only small parts of the population attend to the news, beyond a superficial level.

The system happens to be very [unknown word] to me, but for reasons that I suspect very few users share, I am interested in the media as such, and therefore am fascinated by the comparison between 'raw news' and what actually appears. But that is surely not a general interest." --1148

"People who are willing to support the CommInS are those who can gain financially from its output. Without advertising support the medium is too costly to provide an effective alternative to print. In that sense, CommInS success depends on how well it meets the market needs of its proper target; people who make money from information. However, if CommInS can be in the leading edge of providing a great depth (i.e. very specific) and breadth (i.e. from a wide variety of sources) of data, it can serve its role more effectively. Thus technology is important, but not the nuts and bolts of the computer

program (which are really fine already) but the means of tapping into and having available a suitably astounding breath and depth of information." --1150

"There is no market need -- there is lots of competition in newspapers, on-line guides, clipping services, etc. The question is rather that of competitive advantage which depends on cost and accessibility of the technological embodiment.

For example, I return to my pet scheme for CommInS -- a completely solid state diskless version with system in ROM and keyboard and monitor. This could be inexpensive, not tie up the computer, and not even be called a computer -- it would simply be an 'electronic newspaper.'" --1152

"Clearly both are involved; the technology has to be efficient, accessible, and cost-effective to be workable. But no matter how useful it may seem because of its abilities, for it to be commercially viable, it has to serve a market need." --1153

"Both. Computer buffs will buy it as a way to use their computers more, and use a very interesting system in the process. I think the major reason for buying the system will be to find specific information about specific subjects without reading through piles of print. (It's also a lot less messy than newspapers everywhere.) (But on the other hand, you can't line the bottom of a birdcage with it.)" --1160

"Huh? Market needs must be satisfied by appropriate technology -- nifty, unneeded technology will serve as a novelty." --1161

"Of course the success of the CommInS system will be determined be a combination of marketing needs and by the technology. The technology must be sufficiently advanced to require little or no installation and the information available will have to be useful to a wide variety of individuals. I don't [think] that the CommInS project will have any problem marketing the system. I think the value of the system is self-evident." --1162

"Some people will be excited by the technology. Most will use it if and when it makes their lives easier, better, or more fun. Success lies in the latter group of people -- you have to find features that give people real benefit." --1164

"A combination of both. The technology itself is OK. What needs to be changed is: 1) more data sources added 2) interface improved (especially the query language). With these two changes the product should be a success.

A market focus, however, could be useful. For example, adding business publications or computer publications would help to improve likelihood of success." --1165

"Both, of course. They co-evolve." --1168

"I suspect the major challenge to commercial success of a CommInS-like system would come from expanded services offered over a broadband network (2-way cable or Fiberoptic telephone) which would allow querying a remote database and/or automatic updating of preselected topics by automated forward and store. This would require relatively 'dumb' terminal devices which could be very inexpensive to mass produce. It (fiberoptic telephone service) would also be less prone to piracy and more easily changed for based on usage." --1173

"Its technology. The market will be there if the system can be developed/evolved into a miniaturized, preferably portable version requiring a minimum of 'computer skills' to operate, and incorporating illustrations (pictures) and headlines." --1174

"I think both factors are important. Boston CommInS has several parts: 1) A broadcast distribution technology; 2) A decentralized decoding/filtering system based on low-cost personal computers; 3) A dial-in database server; 4) A simple filtering system to select out desired information from a continuous stream. 5) A consistent, usable user interface, with built-in Help.

I think the component which is needed most urgently and widely in the market is filtering. This is the key technology, and is applicable to broadcast news, and computer networks news feeds (e.g. Arpanet, Usenet, CSNet, The Source, corporate networks, etc.), regardless of the actual technology used for information transport. Professional computer users are already

facing problems with information overload, and need automated assistance in screening and retrieving the information they need from the torrent of data that flows past them daily.

The remaining components of the CommInS system are important and useful, but the overall usefullness (assuming everything else is done at least adequately) will depend on the sophistication and usability of the filter and of course, on the quality of the raw information feeds.

(P.S. You might want to consider offering an electronic mail address as an alternate way of receiving essay questions and comments. This might encourage longer, more-carefully-thought-out answers (as well as off-the-cuff answers), and would be a boon for anyone who tired of deciphering semi-legible handwriting, and for those of us suffering from writer's cramp.)" --1178

"Dave Segal found my 'equipment' inoperable because of some defect. So for all of my interest, I never got off the ground with the Project. Regrets -- because I would have used Boston CommInS to supplement my newspaper reading and radio listening (I don't watch TV, and read only National Geog., Smithsonian, and Horticulture Magazine on a regular basis). If your 'equipment' performs as promised I think there will always be a market for it." --1179

"What the market needs determines the success of any project. If the technology can meet a market need, CommInS will be successful. The more needs the technology can meet, the more success the project will have. Success will be determined by supply and demand. Supply means the service that can be provided at various prices. What price range will the possible CommInS server fall in? At $5/month I would definitely 'need' the CommInS even as it is presently configured. At $100/month I would definitely not need the CommInS. Your question must include some consideration of price to get any meaningful results." --1181

"Market needs -- there must be a demand for the services that technology provides. People will not pay for something they have only a marginal use for." --1184

"The use of some technology is environment dependent, i.e. access may be restricted by environment constraints (satellite, cable TV) where the individual's daily routine requires mobility. Telemet uses an FM receiver called Radio Exchange like the Boston CommInS receiver, and one called Pocket Pro Quote (hand-held -- receiving radius is a little less).

My primary area of interest is business/financial data which is constantly changing. Market needs need to be evaluated by clientel groups. In order for use to expand to other groups and overall use increase, the information should pay for itself. For one service to be selected over another, it should provide distinct advantages (tradeoffs). This is the 'Information Age' with horizons being extended as information is evaluated and used more efficiently." --1187

"Its success will be determined almost entirely by market needs, as long as the technology works. To be successful, a business must have customers. The sophistication of the code or the receiver have very little impact on the user. For this particular application even speed is not important to the user. Even with no further technological advances the system could be sold and be successful.

One area in which the technology could have an impact, however, would be on the breadth of the consumer base. If the software could be made to run on all machines not just on 100% compatibles, the system could be sold to more people and to more different types of people, including those who can only afford TRS 80s." --1188

"By market needs. Technology adapts and is driven by market needs, not the other way around. The failure of CommInS may be explained as much by technology as by lack of market needs however." --1192

"The success of the Boston CommInS will be primarily determined by market needs -- the same standard that virtually all products must meet. However, it is important to note that 'market needs' are often not known or not knowable in advance of test marketing of a new product. Also, the technology embodied in a product may be essential to meeting an anticipating or unanticipated market need, so in that sense its success is 'determined' by its technology -- but the technology alone cannot guarantee success if the market need is not there, i.e. technology may be necessary but it's unlikely to be sufficient for success.

In general terms, the market need that CommInS proposes to address -- beyond a small market for clever gadgets -- is the need for timely information about current events. The relevant attributes of CommInS are its cost, ease of use, timeliness, comprehensiveness of coverage, and reliability. As matters stand, it is an open question whether there is a significant, unserved market niche between those on the one hand for whom existing newspapers, radio and TV serve adequately; and those on the other hand who can justify paying premium rates for existing on-line information services. CommInS can attempt to address these markets by offering lower cost (if it's priced right) and/or ease of use (if the software and hardware are developed further). Alternatively or additionally, it can attempt to open new markets by offering some new form of information not otherwise conveniently available." --1195

"Get serious. Market needs cannot be discerned except through real economic demand for products and services, i.e., technology. The real question is concerned with which of the elements in the bundle of goods and services being sold as a unit are things of value to the purchaser. Somebody will have to decompose Boston CommInS into its economic components, define markets by preference orderings over various possible substitutions of goods, relate the cost and value-in-context elements, and validate the resulting model in terms of its fidelity to the actual statistics.

The real value of CommInS to users in Boston lies principally in its ability to deliver relevant information quickly, accurately, and completely. Some of the information cannot be obtained from any other source (e.g. about the internal workings of the AP wire service), but most of it can. The question is when, and for how much? Academic studies available free from Westlaw and, if you know the right person, from a large midwest university, indicate that keyword search over full text fails to catch all the information, and sometimes as little as 20% of the items sought. (The lesson for [unknown words] is that editorial content adds substantial value.) The Boston CommInS broadcast items have far too little editorial categorization; I haven't used the db yet. My own preferences are for the automatic update feature. Missing: a way to run the radio in background -- RAM in the receiver?" --1197

"A combination of both. The desire for filtered information is increasing. The need for it is there. The technology is not formidable to computer literate people and there are more and more computer literate people in the world today.

The technology is new. If there were no market need the technology would not be accepted. The combination of need and technology as well as a careful introduction and teaching attitude will make Boston CommInS a success.

These questionnaires and the readable documentation create a pleasant introduction and continued interest in Boston CommInS." --1201

"This is the second time you have posed a question well beyond my expertise, but I'll try to answer.

Do I feel the success of the system will be determined by market needs or by its technology?

Well, I'm not positive it will be successful to begin with. I would hope it would be, but nothing in my experience with telecommunications in general and computerized information retrieval in particular gives me confidence that will be the case. The Source, for instance, seems to be struggling to get by -- DELPHI, far friendly than the Source or Compuserve seems to be alm unknown to many telecommunications, the BYTE syst ' gather depends upon revenues from its parent magazine to survive, local BBSs go down the tubes all the time . blished research systems have to charge exorbitant rates to meet overhead.

However, if Boston CommInS can make a go of it commercially, my guess is it will be thanks to substance (i.e. content) of its technology rather than the technology itself. Technology, when successful, seems to become invisible to its users and taken for granted. The thrill of technology per se soon fades. And 'sexy' technology by itself can fail dramatically if the service it provides is either unwanted by or frightening to its potential market. A good example is the video phone, which enhanced an existing technology with an added dimension few, if any, wanted. People wanted to be heard, not seen, when on the phone." --1204

"I feel that the success of Boston CommInS will be determined by market needs. I believe that any technology missing today can be readily developed when there is a market incentive to do so. I am a very inexperienced software user, but I just got a brochure from Fidelity Investments that lets me keep track of my investments hourly. I am very interested and have sent for further information." --1205

"Both. Market needs will account for a small hardcore of professionals who might use the program for business (although I don't know what the competition is), but I think the real market may be just busy people like me who may use it for fun and on the side occasionally, for work when it applies. People who are just keeping up with the news along lines that can be filtered to interest them -- you can see, I think, a wide range of your interests organized here, where as if you're busy, you don't cover the newspaper in the same organized way. Or you can seek new interests through the filters. Therefore, I think that it will be easy for anyone who already has a computer, possible to market, if the software is easily explained, to those who don't." --1206

"Market needs are already there -- it will grow depending on the information available and ease of use -- but the technology is there to make this almost as readily available as the radio is to most people but we at this moment are talking about a still limited group of people with computers in the general populations businesses with computers and information needs are already there and this technology would be very easy to expand to many users, I imagine -- the costs must be kept down or it will fail as videotex has failed in this country, but not in Europe (e.g. France) which has nationalized or subsidized the technology. I also would not like to see two groups of people in this country, information rich and poor because of cost and accessibility." --1207

"I don't feel I know enough about the technology to be aware of its limits.

Re: Market needs. For those who already have computers and are looking for something to do with it, the radio receiving mode is useful and convenient. However, it is a very close substitute for a newspaper. (It may have extra appeal in other north American markets where a paper copy of the NYT is not available. As the newspaper of record, there is a demand for the cheap and timely delivery of its content across the U.S. and Canada).

The modem-database searching mode should be useful in professional situations, for anyone trying to collect a complete and up to date record of recent information on a given subject. Should be applicable to a variety of consulting fields." --1208

"No idea." --1209

"If a stand-alone system is available and is simple to use, it would be of some interest to a percentage (probably small) of the general population. I do not see the market for it expect narrowly. As before, I'd like to see specific searchable databases (Boston Globe, NY Times, AP newswire, Dow Jones, Wall St. Journal, etc). In answer to the question, the market is small; the technology won't really make too much difference." --1210

"The success of CIS will be determined by both market need and technology. The cost of printing and distributing the news in hard copy form will continue to rise, mainly because of the costs of labor in delivering the the final product, but also because of the 'perceived' increase in 'cost' associated with taking the time to read a printed news summary. Concurrently, technological improvements will bring down the cost of the CommInS related hard/software such that electronically distributed news in digital form will be on par with the then expensive hard copy.

Thus a news medium like CommInS will exist in the future. How widespread its use will be should be directly proportional to (1) the magnitude of interested readers with the appropriate receivers and (2) the interfacing ease associated with using the program." --1212

"I feel that the technology will ultimately determine Boston CommInS's success. Since many inexpensive alternative information sources already exist, such as TV, radio, and newspapers, only the technology can make Boston CommInS successful. Boston CommInS allows the manipulation of large amounts of news material that is not possible with conventional news media. This ability coupled with market needs will make Boston CommInS successful." --1214

"Market needs. Should have information for specific professional audiences. General news, although interesting, is available in more detail than I'm really interested in." --1216

"Strictly market needs. Technological brilliance is not sufficient to generate a successful product without actual value to the user. The technical excellence is required but not sufficient for a successful idea." --1217

"If it is successful it will be because of market needs. I cannot think of an item which was successful only for its technology. You, of all people, should know that technology is an implementation detail and not and end in itself." --1218

"Most people don't care about the terminal state-of-the-art goodies in a box, but rather what it can do for them. It should be targeted towards specific markets which: 1) are large enough for mass distribution; 2) have untollfilled information [unknown word] at reasonable cost; 3) possibly have a real-time delivery component." --1220

"I think the success will determined by the technology. As things get simpler to operate they become more accepted." --1221

"Considering the unhappy history of videotex in general, it is unlikely that this service which has many similarities will have much success unless a specific market arises. The market is already overcrowded with options and individuals who are already spending much of their professional time in front of a terminal and are not likely to want to exchange the newspaper or scientific journal that they can read away from the screen for more hours at the screen. This technology has a bright future in a few narrow markets which will have to be developed." --1222

"Market needs -- technology is very good and interesting, but you need to convince people that they have a use for it and that it is worth spending time and money on it." --1223

"Market needs! History is replete with clever technological solutions to non-existent problems. And even when a market need exists, or can be fostered, success will depend on marketing and sales promotion. Even if there is a need for a better mousetrap, I don't believe the world will beat a path to the doorstep of the builder of one, unless he/she also has a proper marketing and sales department under the direction of strong, financially-oriented management. The MIT environs are littered with the ghosts of such poorly managed technical companies. Good luck, I hope you do it right." --1225

"I feel that specific market needs will definitely be the dominating factor influencing the future success of the Boston CommInS project. The technology of the system has reached a point where it is suitable and accessible to a larger portion of the population and thus has become less of a criterion for success. The needs of the market, however, still remain vastly untested and thus should be greatly considered when determining future directions for the project. If the system is not commericialized in such a way that it becomes useful and marketable to a large portion of the public, I don't think it will be able to succeed to a large degree at all." --1227

"I would phrase it a little differently -- market needs, technology, or pricing structure. It seems to me that the technology is there -- what I have today works fine.

As for market needs, I like and want this system. Many of my friends would want the CommInS system. The market is there, especially if you offer the system on other machines (Macintosh at least). The big question, it seems to me, is pricing. I would want the system if the price wasn't too high. For the average home user (not the professional or business user) my guess for pricing is that most people would not to pay more than one or two times what they pay for a regular newspaper. That, I fear, is the big rub.

A thought for the system -- I leave it running about 24 hours/day most days, and often walk by to see 'what's new' in the world. It would be nice if I could see the articles arranged by time, rather by subject. Any chance of this?" --1228

"The success depends on the cost of the service; after that comes the market needs. The best made widget in the world won't sell if no one wants it. a) Dial-up -- direct competition with many (see enclosed note the rates) b) Radio has a good shot since the overhead (CPU, Tel Lines) doesn't increase with the amount of customers. Therefore, a fixed monthly rate can be established. Radio does require a full CPU running in the background didn't seem to work out. But the CPU can be at the low end under $1000 class." --1229

"The success of the project is highly determined by market needs. Although 'techie types' will always gravitate towards gadget-type toys and create a limited market (a la Sharper Image), the project still must cater to this limited market too.

In my consulting work, we speak less of the tool and more of the 'effect' of the tool. That is, people don't need computers -- they need the benefits of the computer. In the same vein, the Boston CommInS's project success will be based not on the technology, but on the benefits that the technology brings the user." --1232

"Market needs. Everything is determined by market needs. You'll have to figure a way to sell the information; people have to be convinced that they need it." --1234

"Both. Technology will be important on two fronts, cost and 'user-friendliness'. For business/professional users, ease of operation is by far more important. I've shown this system to many people, but not one of them would have the ability or patience to run it.

Market needs is an area that needs more work. So far, I haven't seen any uses that would cause me to pay more than a nominal amount, say $10 to $20 per month for such a service. Beyond this, I think you quickly get into a few narrow markets, such as stock market analysts, corporate planners, and the like.

I do see an opportunity for a more comprehensive service covering vertical submarkets, analogous to those in the software industry. If you could couple the current-events reporting of the current system with coverage of all the major trade magazines and journals in my field, you would have a truly powerful combination. Such a service would save me a great deal of reading time (or make my reading time more productive). For that, I would pay more and go through the hassles of learning and operating the software.

Possible vertical markets: lawyers, medical specialties, computer programmers, engineers of all types, investment managers, educators & trainers, architects, etc. A possible name: A 'Professional Awareness' Service. --1235

"I believe that the commercial success of the Boston CommInS system will be determined primarily by its technology -- convenience, reliability, and ease of use. We are an 'information society', and the potential market for a product of this kind is enormous. However, this 'information market' is being courted by several new competing technologies (CD ROM, dial-up news services and on-line databases). For the Boston CommInS system to win a share of this market, its user interface must be improved and the problem of information redundancy must be addressed. While I find the Boston CommInS system an interesting and enjoyable hobby, I do not find it an efficient way to obtain specific information." --1240

"Initially by technology -- as a gee-whiz type of product. Long term by market needs, unless the fee is really cheap." --1241

"Both. Without a market there is nobody interested in buying the product. But with poor technology, even an interested market will be turned off. I think the technology still has a ways to go, but I don't know what the market looks like now. I suspect we don't have sufficient computer literacy yet to support a commercial system like this." --1242

"I think that it will be determined by the market needs. If the people decide that they want this technology a market will be created. This market will decide the success of the system. Technology alone by itself can't create demand." --1243

"Both. Technology must provide 'routine access', it must be easier to use, and it must be delivered in a way that is routinely easy to use (ease of use mostly means familiarity) -- so you must be somewhat computer literate. The breadth of information must encompass information of great interest to the market. Some 'editing' -- like moderated newsgroups on Usenet would also be useful -- so your filter doesn't screen out stuff you should see even if it is not in your normal interest areas." --1244

"By market needs. Without sufficient financial interest the technology cannot be improved to the point where it is truly a useful timesaver." --1247

"The two are not independent. I have used rubber cement as a paper cleaning fluid. It depends also on the competition. Boston CommInS requires more overt purpose from its users than other news sources; and a larger initial investment. Its success depends -- [unknown word] -- on a combination of accidents that are [unknown word], [unknown word], and technological." --1248

April 1987

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
79	0.00	60.00	300.00	900.00	1440.00	480.43
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
78	0.00	5.00	10.00	15.00	120.00	14.78
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
76	0.00	3.00	5.00	12.00	120.00	12.88
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
78	0.00	3.00	8.00	15.00	120.00	13.60
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
71	0.00	0.00	1.00	2.00	60.00	3.51
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
75	0.00	20.00	50.00	100.00	1000.00	115.29
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
75	0.00	10.00	30.00	50.00	500.00	48.37
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
75	0.00	5.00	10.00	25.00	100.00	17.75
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
75	0.00	2.00	5.00	10.00	55.00	7.84
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
68	0.00	0.00	1.00	2.00	15.00	1.88
55 I find that the information available is of: little interest--great interest						
81	1.00	6.00	7.00	9.00	10.00	6.93
61 I find the software: difficult to use--OK--easy to use						
87	0.00	5.00	8.00	9.00	10.00	7.21
62 To use the commands, I mostly: Use the Menus [0] Use the Keystroke Equivalents [1] [OTHER--2]						
70	0.00	1.00	1.00	1.00	1.00	.77

67 Using the system, I feel: awkward--OK--comfortable

80	1.00	5.00	6.00	7.00	10.00	6.39

70 I find the system has: no value to me--some--great value to me

87	0.00	5.00	7.00	8.00	10.00	6.64

72 When looking for specific information, I prefer to: read the newspaper--use the system

87	0.00	5.00	7.00	8.00	10.00	6.82

73 When reading for general information, I prefer to: read the newspaper--use the system

86	0.00	2.00	4.00	6.00	10.00	4.13

81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.

79	0.00	10.00	20.00	50.00	190.00	32.62

93 My interest in the system is: decreasing--unchanged--increasing

87	0.00	5.00	5.00	6.00	10.00	5.16

104 With the system, I feel: less informed--same--better informed

84	5.00	6.00	8.00	9.00	10.00	7.55

129 I use the modem connection for two-way access: not at all--some--every day

77	0.00	0.00	0.00	2.00	9.00	1.70

130 Of this time, I use the two-way features with my modem ___ minutes/day

66	0.00	0.00	0.00	1.00	30.00	2.41

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

50	0.00	0.00	0.00	3.00	40.00	3.18

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

49	0.00	0.00	0.00	1.00	40.00	2.10

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

49	0.00	0.00	0.00	1.00	25.00	1.43

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

48	0.00	0.00	0.00	0.00	6.00	.23

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

55	0.00	0.00	0.00	5.00	50.00	4.31

140 On average, I use the modem connection: less this month--same--more

66	0.00	1.00	5.00	5.00	10.00	4.11

143 For business/professional applications, I find the system: not useful--very useful

87	0.00	4.00	7.00	8.00	10.00	6.07

144 For home/personal applications, I find the system: not useful--very useful

86	0.00	4.00	6.00	8.00	10.00	6.00

150 I find the system: a novelty----a genuine aid

84	0.00	5.00	7.00	8.00	10.00	6.36

155 When looking for specific information, I would prefer to use a: menu driven system--query language system

84	0.00	5.00	7.00	8.00	10.00	6.15

156 When browsing for general information, I would prefer to use a: menu driven system--query language system

86	0.00	3.00	5.00	7.00	10.00	4.90

157 When I first received the system, I found using the query language to be more/less difficult than using exclusively menu-driven techniques: query lang. more difficult--query lang. less difficult

84	0.00	4.00	5.00	6.00	10.00	4.79

158 I find the broadcasting part of the system to be: not useful--OK--very useful

85	0.00	5.00	8.00	9.00	10.00	7.02

159 I find the 2-way (remote) part of the system to be: not useful--OK--very useful

68	0.00	2.00	4.00	6.00	10.00	4.29

160 If I lived further from downtown Boston so that I could only receive the news with the help of a roof-top antenna, I would be willing to install one at my expense: no--maybe--yes

86	0.00	2.00	5.00	6.00	10.00	4.81

Please comment separately on how useful you find (i) the broadcasting and (ii) the 2-way (remote access) parts of the system. Do you feel each aspect is necessary for a system like the Boston CommInS to be commercially successful? Why or why not?

"The broadcast aspect is most useful to me because it is all I use. My modem is at home, but I can't receive the radio signal at home. The remote access will be very useful for commercial applications, because you may not have time to wait for information to be broadcast or the information may have already been broadcast. The broadcast is good to keep you aware of information you might not know to ask for." --1005

"Both broadcast and modem would be necessary. [illegible]e access convenient for 'special' queries not anticipated when filter window is set up. Broadcast however captures information with no need for user intervention -- a very attractive feature." --1009

"I have not used the two-way system. I feel the broadcast system may be commercially successful by itself. The two-way system is probably too complicated." --1011

"I find the broadcast system to be extremely valuable. The volume of information available, high rate of arrival and timeliness are exceptional providing a good complement to print and broadcast media. The two-way system has much less value to me, and in any case, I view it as a separate facility having little relation to the broadcast. It is probably much more appropriate to have dial-in access to a very wide ranging database a la 'the source'. The integration with the 'database' query system looks clumsy to me as a user. Perhaps this is because the current user interface is very clumsy. It is hard for me to predict commercial success. If the price is low enough, if the flexibility of the filter is improved, along with the rest of the user interface, and most importantly if the material is published for the intended audience, not just pulled indiscriminately from the news wire, it might be successful." --1013

"Broadcasting is very useful because it doesn't tie up my phone or require a separate phone line with the extra expense of long connect time calls. It has a high rate of sending information and can be used at night when sleeping or daytime when at work. I haven't really used remote access, partially due to the effort to setup and switch the phone (and to tie it up -- my wife's job involves receiving a number of calls), and partially since old news is usually of less interest. This might be a poor assumption/practice on my part -- I think having one week (or more) history available would be useful in a commercial setting, especially since people may miss a few days and want to review. As to commercial aspects -- the

broadcasting is unique and has the advantages discussed above and in previous essays, while the remote access service is available to varying degrees with The Source, CompuServe, Dow Jones, Citi Net Videotex, and Bulletin Boards. If the incremental cost of remote access is low -- include it, but broadcasting and the user modifiable filter are the unique and useful aspects." --1019

"Haven't used the modem connection. Have only 1 R5232 part. In theory, the idea of 90 days backlog of articles should be great for researching a particular topic. Should increase value of system for most users, especially since it should be fairly expensive." --1024

"Both the broadcasting and remote access parts are necessary for a commercially successful system. The two-way modem serves as a backup for deleted articles and as a way to survey recent information on a particular topic. The broadcasting part allows one to achieve an overview of the news, including topics with no long-term professional interest. Of the two, the broadcasting feature is more useful on a day-to-day basis, the modem for specific applications." --1025

"Broadcasting (SDI or alerting) and remote access (retrospective retrieval) are both very useful functions. The system is much more likely to be commercially successful if both functions are present." --1041

"Two-way (remote access) is not yet useful to me, as it crashes my system, due to my needing a Votrax or Echo speech synthesizer. Broadcasting is exceedingly helpful to me. Every day I become more dependent on this for keeping me current. When I return to college in September it will become even more important to me. With a remote system, I could even call in to catch up on key areas of interest upon return from vacations, or weekend trips. I'm sorry that it is not yet available to me." --1051

"The broadcasting part of the system is quite useful. It would be more so if it would manage to avoid duplication of articles. This has two parts: a) The system often keeps multiple copies of articles, usually with small differences. b) After I read and delete, an article often comes back. A 'delete with prejudice' would be in order. Remote access is probably useful, but it is a different thing. Lawyers have such a system now, and it is (at least two of them are) successful. I think you are confusing the issue by mixing these things up." --1057

"I use the broadcasting part of the system extensively. The two-way part of the system would be more useful to find out information such as movie reviews. I haven't been able to use the two-way feature because I can't get past the login. I once left a message on the hotline, but received no response. The system needs a filing system so that I can save articles for future reference. A system such as used by babyl would be fine." --1065

"Never use two-way -- nice idea, but I don't have the time. Not necessary, but useful." --1068

"I dislike the broadcast part and only use it occasionally. If the remote access part were improved (add AP) I would find it totally unnecessary. I do not have the time to keep up with the data captured by broadcast. I also do not like leaving the computer on." --1072

"I haven't been using the two-way part of system so I can't comment on it. In general, my impression is that telephoning may be ok if it can be made totally transparent to the user. Alternatively, does optical CD date storage offer a simpler approach if a large data base can be put on each machine?" --1076

"I find the remote part of no use whatsoever. It is only with the supplement to the manual that arrived with this questionnaire that I found out why I have never been able to get the remote to function. Turns out it wasn't getting an outside line from my office. Seems I'm supposed to fiddle with the number it dials. No one told me to, and until now, no one told me how. Now I can't try it, because Dave Segal took my receiver for repair/replacement over two weeks ago, and I can't use the system. The broadcast element is very useful and lots of fun. I do think that both aspects are needed to make CommInS profitable. It's not worth paying good money for it without both. For free, fine." --1080

"Broadcasting and remote access are integral parts of the whole system. The interactive (remote access) portion strengthens the passive (broadcasting) role of the system. The commercial success will probably depend upon how many people/companies have and use modems and what other services are available. Such as: at present stock listings seem to be available for only the first 3 letters of the alphabet. Hardly [unknown word] for those interested in Exxon or Texaco. Also, how does one keep sports items from cluttering up the system?" --1084

"We have only broadcasting and like the system, though the two-way access sounds great and would probably add to the commercial appeal." --1087

"I feel that the remote access is by far the more significant part of the system for professional/serious users since a complete search can be made at any time without any need to: a) leave the computer running for hours. b) check every 2-3 days for a subject of continuing interest. I would not miss the radio receiver if I didn't have it." --1088

"I only use the broadcasting. Mostly because I have not had a Hayes compatible modem and haven't tried to use the modem since I spent an hour or two with the wrong phone number you printed at the beginning. My use of the whole system is dictated by not having much time and spending too much time in front of a PC as it is. Thus I can only comment on the broadcasting part -- which is unique, marketable and useful. It's mostly a marketing problem -- what is the key understandable benefit to a new user, and how do you simply communicate it. You can hype it, or try to get people to sit long enough to really understand it." --1096

"I like the broadcasting system because it can receive most of what I'm interested in without tying up my telephone line! I think it's great: with a little work, by the day's end I have most of the information and news of the day that I'm interested in. I have not been able to use the two-way system. But, I think it has the usual drawbacks of two-way systems -- you have to work to get the information out. I think it's great, though, to have around for information you may have missed or to 'test-out' a new filter line (I wish I could use it!). I think both aspects are necessary for success because the user is given a great deal of information and flexibility. Is it possible to dialup the system and run a remote program without having to use my local software? My hardware won't let me use the modem and your program together." --1098

"1) dynamite! 2) never used!" --1100

"Sorry, no opinion -- do not use modem." --1105

"Yes, both are necessary to provide users opportunity to go back and retrieve information they might have missed due to being away or some other circumstances." --1106

"The broadcasting part is useful because it allows access to current news. I think the access to now news is the neatest part of the system. I suppose the broadcasting is not really necessary for the system to be commercially viable, since I doubt that people who need time-sensitive information will get it from the system. Without the broadcasting part, I would look upon the system more as a database than as a newspaper replacement, which is what I consider it now. I've never used the two-way part of the system." --1112

"The two aspects are separable as a commercial product. The uniqueness of the news broadcasting idea and filtering allows information to be widely disseminated, and economizing one's time in keeping abreast of selectable items in an almost instantaneous manner. The use of the same query language on the remote database is what is attractive. Otherwise it's just another dbase." --1115

"The broadcasting parts of the system are absolutely vital for the CIS to be successful. It is the link to allow me access to the latest news -- stuff I can't see in a newspaper until the next day. In addition, sending out information across the airwaves is probably cheaper than maintaining a database connected to the user by modem. Let's say that some company actually wants to sell the service. It is looking to get a subscriber base of several thousand people. The company will need several minicomputers or an extremely powerful mainframe to handle even a couple of hundred simultaneous requests by modems. That's costly. Sending information out over the waves is much cheaper and cost effective. The two-way parts of the system might be sold as a more expensive option of the service, but it is not the aspect which will make the CIS commercially successful." --1116

"I only have access to the broadcast portion, but I feel either one in itself is a selling point. To be able to receive the articles with the filter line, without the query language, is a value worth paying for, for people without a modem. But to have the option of being able to query specifically on information is something worth paying for, for those with a modem." --1118

"The radio system is not terribly useful and, I fear, would be a flop in the market. It is severely limited since it is awfully

slow, passive, 'non-query'-able. The modem connection is infinitely more useful than the radio receiver and must be part of the package to give the system any chance of commercial success. It provides the user with much greater flexibility in that the PC need not be tied up all day 'listening to the radio' and provides a current (unavailable anywhere else), querable database. Quite frankly, I would not waste my money on a system that offers only 'one way' information transfer." --1119

"I only use the broadcasting part so far because I have not hooked up a modem to this system and my house modem is too far away (long distance charges) to consider using the system at home -- where I cannot get a broadcast receiver." --1121

"I find both parts of the BCIS system useful, and feel that they are complementary. The broadcast system is useful for quick news updates, and given any large number of filter lines gathers a good cross-section of the news. It also gives my computer something to do when I am not using it at the moment, since there are sometimes long periods when it would otherwise lie idle. I find that I catch a great deal of information via the broadcast system, and do not often need to use the dialup system. I find the dialup system primarily useful if the computer has not been on, or if I have fallen behind in my news reading. It is also useful if I see a summary referring to an article that I did not capture. The dialup system is not as useful in searching for general information, though, as I do not usually query all of my filter lines when I am connected. Both parts of the system work together quite well. Either part might be viable without the other, but I think they are best combined in a package. Without the dialup, news can easily be 'lost' while with only a dialup general information cannot be received as easily." --1126

"Since I am not using the remote access feature, I can't really comment. Without it I do see potential success." --1127

"The broadcasting portion is great. However, rather than buy a 2nd PC/Clone for $999, I want to run it on a used Radio Shack or Apple or Zenith or Xerox or Kaypo or whatever runs CP/M. Of course 'Run CP/M' emulates CP/M at full speed on PC's with the Nippon Electrics chip so they would then have joined the mainstream of home/low-cost compatibles by the addition of a $20 V-20. Oh, I suppose I could buy an AST Rampage with Desqview and run multi-tasks but one task could be CP/M. Anyway my PC eats watts and my CP/M Tandy 4 Portable does not, even with the built in 200 baud Hayes compatible modem! and 1 meg. ram. Bug? I can print to my Epson FX-80 if I call it non-IBM. If I call it 'IBM' the program speaks of a queue. The only instruction in the menu to operate on alleged queue is to scratch it. The modem is very limited due to overly cryptic and very short selection power and limitation of just NYT for 90 days." --1134

"I do not use the two-way part of the system, but I wish I could. I suppose that I would no longer have to have my receiver on at the exact time(s) in order to be sure I got all the information I wanted." --1137

"I find the broadcasting part of the system very useful in keeping me up-to-date with world events as they happen. The articles I capture assist me in daily matters as well as in making intelligent stock purchases." --1138

"Both are necessary -- need ability to search back issues -- who follows news closely day-by-day? One can't predict day-by-day what one will know next month." --1141

"The broadcasting is excellent especially with the ability of using the word filter. The word filter has been very effective in capturing articles of concern in Africa, China, health risks and on current happenings. Students have been accessing the information for their classes and have been highlighting major stories before they are in next mornings' news over the intercom. I wish I could use the IBM for CD Rom access and still receive the broadcast news information. A two-way remote system is great. However, I have a 1200 baud modem off a Macintosh and I can't access it. It should not be one computer specific for commercial success." --1144

"I don't have two-way access, but the idea looks extremely useful. I haven't had time to pick up a modem, but will try it when I do." --1148

"The broadcasting segment is intriguing although it is difficult to setup definitive filters. And many duplicate articles seem to come through which is mildly annoying. The remote access segment gives promise of extending the broadcast part of the system but doesn't deliver. The limitation to NYT for exactly 3 months is restrictive. I believe each part is important however. The technology is good although the information sources are too generalist." --1150

"I feel the broadcasting system is essential to allow full breadth of information available. Data rate is much higher and

12-18 hz radio use is much more tolerable than equivalent phone-line use. I find the two-way system of little use - I catch most items I am interested in as they go by [there are ~ 50 topics in my filter]. If I need more information about something this is available in the daily flow of news, the archived material is not detailed enough." --1152

"We just barely purchased a modem, so we haven't used the two-way system capabilities yet -- we do hope to use it however -- the two-way capability makes the CIS a much more useful research tool, but to most people, it probably wouldn't be that important." --1160

"I don't have access to the two-way because I have no modem. I feel that it would be beneficial to have both methods for accessing information. There are many times when I would have liked to get back dated data on a given company or topic. The broadcasting, however, is the main benefit of the system." --1165

"Competing use of my computer has made it infeasible to use the CommInS system for the past two months. That coupled with the additional difficulty of using the two-way system with my non-Hayes compatible modem has caused my interest level to fall to near zero -- since I personally have found little of commercial, professional or economic interest using the system I am ready to end my participation in the experiment. I will be coming to arrange the return of my hardware and software." --1173

"I use the two-way feature only if I think I've missed something. As my filter has evolved, I find the need for the two-way feature lessened. It might be useful to a researcher. The broadcast portion is and will remain the primary feature with at least 99% of the overall value -- as it is based on immediacy, which is what news is all about!" --1174

"The broadcasting part of the system is the mainstay of the system providing most of the articles I read. I use the broadcasting part mostly for local news and special subjects and read regular newspapers (NYT and Boston Globe) every day for headline type news. The two-way part of the system is very useful for looking up current information on specific topics. I don't use the two-way system very frequently but find it very, very useful when I do use it. I view the two-way system as a research tool rather than a way to read the current day's news. The broadcasting and two-way parts of the system do not have to be marketed together and could each be sold separately. But they complement each other and each increases the value of the other. They could be sold separately or an option to purchase when subscribing to the CommInS." --1181

"Our system is still faulty -- can't seem to get [unknown word] downloaded -- lots of radio interference -- will someone please call me for assistance." --1185

"Both the broadcasting and two-way (remote) are essentially complements to one another. The use of a pocket (hand held) FM receiver would increase use of a continuous data stream. Connected to a laptop computer it could be used on the go. Telemet (Alexandria, Virginia) offers a pocket receiver. Remote access would be even more appealing if you could go back one year instead of 90 days. I am more inclined to use the remote feature at home. However, the cost of phone calls needs to be minimized through the use of services like PC Pursuit of local data access numbers. A package cost would equalize the total cost of product. I envision a global product." --1187

"Due to physical constraints, we've never gotten around to setting up our modem. We still find the system very useful, so I think that the modem part of the system is not necessary although it is undoubtedly desirable. [I would in fact suggest marketing the system as broadcasting with optional remote access. People who are not already comfortable with modems and 'real' computers will then be more likely to get the (correct) impression that they need not become 'hackers' to use the system. Probably the broadcast part is necessary for commercial success. That part truly requires no thought or work from the user, an important consideration for mass marketing. The information available via radio is extremely valuable and, since most newspapers get most of their national and international news from AP anyway, one would miss out on little besides local news and commentary. If you make the system available on the Mac (including the 512E as well as the newer models) you can make lots of bucks!" --1188

"Please pass this note to Dave Segal: Need help again on getting access to database by modem. I have never been in contact... probably lack of persistence on my part. Please call me (3-7004)." --1194

"I have found the broadcasting system to be clumsy from the start of my participation and since I acquired a modem I have

made little use of the broadcasting feature. For a variety of reasons I don't like leaving my computer running for long hours unattended. Also, I'm not equipped to be able to run the system as a background task, and even if I were, the performance of my system (a PC XT) is marginal for my purposes even without the burden of multitasking. In theory, the broadcasting system has the advantage of being able to alert the user immediately when a story of interest arrives. However, the computer needs to be on for this to work. And in any case, in the area of general news the radio and TV serve the same purpose, and in the area of specialized news, the system is inferior to existing on-line services (although they are, of course, more expensive). The two-way system, on the other hand, is quite handy. However, the truth is that for me, its unique advantage is that it's free. In fact, ideally, what I'd like to have is access to the full range of services available on, say, CompuServe for zero or negligible cost. Of course, you're not in a position to provide that. More importantly, given the effort you expended in developing the broadcasting system, I'm sure that development of a watered-down but cheap version of existing information utilities was not your primary goal. Here are some ideas which might salvage the broadcasting concept: 1) Make the receiver a full-function device with its own storage capability so that it can operate independently of the computer and then be tapped for information as necessary from a computer or inexpensive terminal. 2) Broaden the range of material covered by the system so that it is more clearly differentiated in its broadcasting function from TV and radio." --1195

"I find the broadcasting very useful. I do not use the two-way part of the system at all. The broadcasting is great because it is so non-labor intensive. We just receive articles and summaries without having to do anything but hook the antenna up. This is a great aspect for making the product successful." --1201

"I don't use the remote access part of the system; my main objection is that it took me too long to go through each of the choices presented during a search. Perhaps I wasn't following directions closely, but after selecting one article from the summary I found it impossible to get back to the menu to select a second choice. Furthermore, the article chosen took so long to download (compared to the speed with which articles were broadcast) I lost patience. Besides, there was no way to cancel transmission of the article if it became clear during downloading it wan't what I was after. I think I would find the system more appealing if a) it were easier to use b) it let me abort transmission at any point and c) it offered a deeper search than three months of New York Times back-issues. To be an effective research tool for me it needs to have a more 'historical' rather than topical value. By comparison, the broadcast aspects of the system are speedy, transparent and fault free for me. My guess is that, to be commercially successful, a system such as yours ought to have an interactive mode, which the remote access now provides. It would be ideal if you could make the broadcasting feature interactive as well, speeding it up enormously. Since that is not the case, making the remote access more substantive (a deeper search, maybe more databases than the New York Times alone) would, I think, give the system more commercial appeal." --1204

"This month I was particularly interested in how the 'market' opened overseas but could not find this information at 7am on my system although I could listen to the radio and get most of it." --1205

"Yes both are definitely necessary. I find the automatic radio filter great but don't have my computer on all the time. I mostly have it on when I'm actually using it or for short periods when I'm not at the keyboard. So if something comes up that I'm interested in, I need to query the database to get everything. The database is a good backup, although I wish it could hold more than 3 months data. I'd like to compare old material with new. Also, the database is more reliable than my filter. I have science watch on the filter and nothing ever comes in on it. (Although one query I did to the database on an important art controversy yielded nothing!) Both absolutely necessary for commercial success. What will I do if I move?" --1206

"For the system I feel the broadcasting part of the system is most definitely an attractive feature -- to be kept constantly informed of newsbreaking stories that one is very interested in following and to receive stories one might not have originally planned on is a large asset of the system. The radio, TV and newspapers are very selective in their news focus -- the system lets the owner choose their news and this should not change. The remote access is valuable when you are clear on the news item or subject you want and it is indeed a tremendous asset and selling point but you cannot browse there unless you have news in mind. Both are necessary to sell the system as an entity, although the remote access is very much like what many on-line vendors charge a fortune for now: Dow Jones, Nexis." --1207

"I have no experience with the remote access portion of the system as I do not have a modem. I find the broadcast portion to be a very close substitute for a newspaper subscription. If this is to contribute to the system's commercial success, the system must be priced to compete with newspapers. Otherwise, the target audience will be quite different, and I suspect the broadcast system would be peripheral." --1208

"The broadcast system is great, I leave it on all night and read my newspaper in the AM. I'd do it if it was commercial The two-way system is less useful. I'd like to be able to capture material from the two-way system to disk, but this is not possible. If I had business research to do it might be more helpful. No the two aren't necessary to be commercially successful. I'd buy the broadcast system alone. I doubt I'd buy the two-way." --1209

"Broadcasting for general news not useful to me. Remote access is useful to pick up specific information (searching) when needed. Wish this part were expanded." --1210

"Have had early problems with broadcasting. Have not used two-way feature. Feel two-way capability a requirement for commercial success." --1212

"The broadcasting is useful because it is as fast as cable, has ease of installation and is relatively cheap. If I miss the megabucks drawing on TV, I can get the numbers pretty quickly with the system. The broadcast receiver is also fairly unobtrusive. Its one drawback is that reception quality is not too good (even in Harvard Square). I still get a lot of bad packets. The remote access is useful for obtaining previous stories. I would find it very interesting to be able to call up a large quantity of information on just about any topic. As for whether both the broadcasting and the remote access are necessary to be commercially successful, I would say no. Most private users would be interested in the low cost broadcast system. They would be unwilling to pay the higher cost involved in maintaining a remote access system." --1214

"If information about my profession (medicine) were available, I imagine that I would use both components a great deal -- the radio to scan the latest information, and the modem for extensive database searches. For those with extensive needs for general news, similar use could be made of the two components." --1216

"I do not use the two-way feature regularly, and therefore do not have any basis for judging the usefulness or necessity of it." --1217

"The broadcasting and remote portions of CommInS serve very different purposes for me. For general information and specific things that I know will be happening (like Academy Awards) I use the broadcast (i) but for background and plain fun, I use remote access. Both are necessary for useful commercial application, for the purposes outlined above. Commercial users need both extensive background and up-to-the-minute information." --1218

"1. Partly useful. 2. Never used yet. 1. Is essential for commercial success, but will not replace printed media. Can supplement only if available 24 hrs/day, providing information which is not available on printed media yet (early news)." --1219

"The broadcast mode avoids having to poll for information -- it shows up as soon as it is ready which is useful for stock report news and other information having a real-time component. It also doesn't tie up the phone lines! Timely delivery of electronic mail could be a novel application. The two-way mode permits ad hoc queries, but against information which is mostly historical. It is good at extracting a subject column of a magazine over the last months, e.g. wine. There is already plenty of competition in the on-line database area! The broadcast mode is definitely necessary for commercial use to be positioned properly in the marketplace. The phone portion could be sold as an option." --1220

"I do not use the two-way system. The broadcast system offers features not available on commercial systems on any large scale. A broadcast system could be successful in closed environments such as universities, hospitals, public works departments in large cities etc. As a substitute for conventional news delivery it doesn't seem to be viable." --1222

"If I ever found time to use it, the remote access feature would be very useful to find background information on specific topics. Broadcasting is only useful for current events which are not found in the newspaper -- most general news is already in the newspaper. Remote access system needs a better way to filter out general news which repeats what I already know and to focus in on specific topics of interest." --1223

"Because I leave my PC on 24 hours a day, I do not, usually, have any use for the remote access aspect. The exceptions are when I've been away and want to read, say, Safire's 'On Language' which was transmitted during that interval or in the rare case when I want to see if there's anything on file on a subject not in my filter. I would use the remote access feature more frequently if it provided access to databases other than those which have already passed through my filter. For

example: encyclopedias, magazines, entertainment listings, calendars of events, etc. Without something other than the NYT back file, I don't think the remote access feature adds much. As a marketing feature, however, it probably would appeal to people, so, as a business person, I would keep it in." --1225

"The broadcasting part of the system is extremely useful -- about 95% of the information I receive from the system is through the broadcasting part. If the system were to be made commercially available, this would be an essential aspect. The remote access is also very useful; however, I find that I use it much less than the broadcasting part. I think it would be more essential in a business environment where specific information is often required, rather than at the personal level. In a commercial system aimed at the home market, it would not be the most important aspect of the system; however for professional or business use it becomes more important." --1227

"To start: I do not own a 1200 baud modem (yet) and have never used the two-way system. This small, ugly fact, however, will not keep me from discussing the subject. For the home market, as I see it, one of the main customer types will be the news addict. I have a touch of that affliction, and during the height of the Iran/contra story I found that I had a real conflict. My PC has neither the memory nor the power to multitask while running the CommInS, neither do I have a 1200 baud modem. I found that I was unwilling to turn off the CommInS system (I might miss something important), but I couldn't use my own computer! It was a hostage of my need for the news and the program's needs. I barely allowed myself to use the PC for any of my usual PC activities. So those who need a PC for other purposes (99% of the potential market?) a real multitasking ability and/or remote access are necessary." --1228

"Yes - I was able to use my modem until it broke. I am waiting for a replacement. Now, I catch an article via radio and want to back reference with the modem. The radio will keep connect charges lower." --1229

"Both aspects are important to the project. Unfortunately, I have my Compaq tied to a Vax and don't have an extra port for a modem. (If you had some way of tying both parts to one port, that would be great!) I can see many cases where I could use the data base feature." --1232

"I don't use this option." --1234

"I've used the modem feature only a few times. By contrast, I am a fairly regular user of Dialog, BRS, Nexis, etc. Your system stores only the two newswires and only for the past 90 days. When I'm hunting for information, I generally want a complete sweep of the literature for the past several years. Even though your modem system is free, I turn to the commercial services to save time. (I'd have to use them anyway). For me, the modem system buys a little peace of mind (in case I change my mind about something I erased). Otherwise, it's not important to my use of the system. (For people who have less budget, it might be). As to prices, I'd be willing to pay an extra $1 or $2 per month for a password plus a modest charge for usage. Say, 25 cents per full article downloaded and 5 cents per summary. Much higher, say $5 per month, and I'd probably drop it." --1235

"Despite some criticism of the software and documentation, I find the broadcast system quite useful. I am able to process more information more quickly than I could do with more conventional means of obtaining news (TV, newspapers). I have not successfully used the modem connection (but I will try out the new instructions). It is hard to say what is necessary to make the system commercially successful -- so much will depend on marketing and user awareness. At the risk of repeating myself, I think that the user interface and documentation need to be considerably improved. I train people to use many commercial software packages (nearly all considerably slicker and easier than this one) and have found that a great many average (college educated, reasonably intelligent) users cannot handle available software without a lot of hand-holding and support. As it stands now, your system is beyond the capability of a large share of your potential market." --1240

"I don't have a modem to use the two-way access, but I think it's important for commercial success. You need to be able to query a large database quickly, and not have to wait for re-broadcasts of articles, or particularly older articles that wouldn't be rebroadcast." --1241

"I use the broadcasting part almost exclusively. Only rarely do I spend the time to use the remote access part of the system. I think that if the system is offered commercially, the remote access will be necessary, because the many people cannot be connected to the broadcasting system all day (they need to use their PCs for other things) and therefore may miss large

segments of the broadcast. I do not use the remote access part of the system because right now I have very little spare time. I use the broadcast part more, but less than I have when I had more spare time. Perhaps the problem is that I spend so much time in front of a computer all day that I find sitting in a more comfortable chair reading the paper a welcome relief." --1242

"I find the broadcasting portion of the system much more useful and easier to setup. In general modem communication is slow at 1200 baud and unless one has a separate phone line in his home for modem use with one line it is inconvenient. For Boston CommInS to be commercially successful it does not need to use the modem line concept. Also, the phone call would have to be toll free so that people would use it especially those that are outside of Boston area." --1243

"I don't use the two-way part much, but I have found it very useful when I did use it. I feel both aspects are important since you can't always write a filter to collect everything you might be interested in." --1244

"At present I don't have a Hayes Compatible 1200 baud modem to take advantage of the two-way (remote access) feature of the system. Although I can see considerable value to this feature, it is my opinion that the broadcasting feature is commercially viable as a stand alone system." --1247

May 1987

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	87	0.00	60.00	300.00	900.00	1440.00	483.20
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	85	0.00	5.00	10.00	20.00	180.00	15.90
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	85	0.00	3.00	10.00	15.00	180.00	12.49
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	84	0.00	5.00	10.00	15.00	120.00	12.87
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	79	0.00	0.00	1.00	5.00	60.00	3.41
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	86	0.00	25.00	50.00	100.00	2000.00	137.42
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	85	0.00	10.00	28.00	50.00	500.00	49.63
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	86	0.00	5.00	10.00	20.00	150.00	17.66
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	85	0.00	2.00	5.00	10.00	50.00	7.77
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day	84	0.00	0.00	.90	2.00	25.00	2.28
55 I find that the information available is of: little interest--great interest	92	1.00	6.00	7.50	8.00	10.00	7.09
70 I find the system has: no value to me--some--great value to me	92	0.00	5.00	7.00	8.00	10.00	6.99
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.	87	0.00	10.00	22.50	45.00	420.00	35.58

93 My interest in the system is: decreasing--unchanged--increasing

93	0.00	4.00	5.00	6.00	10.00	5.16

130 Of this time, I use the two-way features with my modem ___ minutes/day

77	0.00	0.00	0.00	.90	150.00	3.70

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

43	0.00	0.00	0.00	4.00	100.00	4.90

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

44	0.00	0.00	0.00	1.00	80.00	3.11

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

45	0.00	0.00	0.00	1.00	50.00	1.95

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

43	0.00	0.00	0.00	.25	10.00	.60

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

68	0.00	0.00	0.00	2.00	150.00	4.37

161 I run the system with a RAM disK: never--sometimes--always

90	0.00	0.00	0.00	6.00	10.00	2.64

162 I run the system with a multi-tasking operating system: never--sometimes--always

93	0.00	0.00	0.00	0.00	10.00	1.25

163 I export news files to my word processor: never--sometimes--often

93	0.00	0.00	0.00	1.00	10.00	1.17

164 I tend to have the receiver and software running the same time every day: no [0]--yes[1]

90	0.00	0.00	1.00	1.00	1.00	.52

165 If yes, I tend to turn the system on at: ___ am pm [Converted to 24-hour time]

49	0.00	0.00	500.00	1700.00	2300.00	789.90

166 If yes, I tend to turn the system off at: ___ am pm [Converted to 24-hour time]

49	200.00	1000.00	2300.00	2400.00	2400.00	1871.22

167 I have ___ friends that I think would like a system to try.

82	0.00	1.00	2.00	4.50	250.00	6.05

168 I would like an UNDO feature in the software: no--maybe--yes

91	0.00	3.00	5.00	8.00	10.00	5.40

169 I would like to use an oversized screen, say >17 inch diagonal, with the system: no--maybe--yes

95	0.00	0.00	4.00	5.00	10.00	3.97

170 I would like to have longer filter lines available on the system: no--maybe--yes

93	0.00	3.00	6.00	9.00	10.00	5.87

171 I would like to use "global" filter lines: no--maybe--yes

84	0.00	5.00	7.00	9.00	10.00	6.88

172 On the system, I miss the comics: not at all--some--very much

94	0.00	0.00	0.00	6.00	10.00	2.65

173 On the system, I miss the political cartoons: not at all--some--very much

95	0.00	0.00	3.00	6.00	10.00	3.77

174 On the system, I read the NYT editorials: not at all--some--often

95	0.00	0.00	4.00	6.00	10.00	4.05

175 I have used the 2-way part of the system: no [0]--yes[1]

75	0.00	0.00	0.00	1.00	1.00	.36

176 I feel that the 2-way features are critical to the commercial success of the system: no--some--yes

75	0.00	1.00	5.00	8.00	10.00	4.56

177 Answer the last question in this section ONLY IF you have used the 2-way system at least once: If the 2-way feature were discontinued, I would be: upset--indifferent--happy

44	0.00	1.00	3.00	4.00	7.00	2.64

178 To improve the commercial success of the system, I think that the software should run on non-IBM compatible computers: no--maybe--yes

91	0.00	5.00	7.00	10.00	10.00	6.85

179 I will be in greater-Boston this summer and will continue to use the CommInS system: no[0]--yes[1]

96	0.00	1.00	1.00	1.00	1.00	.95

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: __. Number/Day

43	0.00	0.00	0.00	2.00	20.00	2.17

In order, I think that these computers are most critical to the commercial success of the system:

IBM
Apple
--1005

Apple
Amiga
--1006

Macintosh
Apple II
--1011

Apple
Macintosh
--1019

Apples
Macs
--1024

Macintosh
Atari
--1025

Macintosh

Apple II
--1028

Macintosh
MicroVax
--1032

IBM and compatibles
Macintosh
--1051

Mac
Vax
--1057

IBM
--1065

Mac
Commodore
--1068

Apple
Macintosh
--1075

Macs
--1076

IBM
Mac
--1077

Apple
Macs
--1084

Mac
Atari/Apple II/Amiga/Commodore 64
--1088

Macintosh
Apple II
--1096

Macintosh
?
--1098

Macintosh
--1100

IBM
Apple
--1105

Macintosh
Amiga
--1106

Mac
--1109

Macintosh
MAX
--1112

IBM Compatible
Apple Macintosh
--1115

Macintosh
IBM PC
--1116

IBM Compatible
Macintosh
--1118

Apple
Macintosh
--1119

Apple
--1120

MS-DOS machines
MACs
--1121

Mac
--1125

Apple Macintosh
Apple II GS
--1126

I don't know computers well enough to say.
--1127

IBM BCS
--1130

Macintosh
Amiga, Atari
--1133

Apple FIX
CPM emulating ADM-5
--1134

MAC
--1137

Portables
IBM compatible
--1138

Apple II
--1141

Don't know.
--1148

IBM PC
Mac
--1150

IBM compatible
Apple compatible
--1152

IBM
Apple - Mac
--1160

Apple II
Mac/Mac II
--1162

Mac

Unix
--1163

IBM
Macintosh
--1165

Apple Macintosh
--1171

Apple
Commodore
--1174

IBM
Apple
--1175

Apple Macintosh
Unix! Unix Usenet news is where filtering is really needed badly.
--1178

IBM compatible
MAC
--1181

IBM PC
Apple Macintosh
--1184

***IBM compatible
Apple
--1187

Macintosh
--1188

Mac
--1192

Apple Macintosh
All others besides IBM and Mac are far less important.
--1195

Macintosh
--1197

Mac
Atari or Auriga
--1201

Apple-Macintosh
Wang PC
--1203

IBM
--1204

MAC
Apple
--1206

Apple IIs
Macintosh
--1207

DOS
Macintosh
--1208

Macintosh
--1209

Apple
Atari
--1210

IBM mainframe
DEC VAX
Prime
--1214

IBM
Mac
--1216

Macintosh
unknown
--1217

Macintosh
VAX
--1218

IBM PC/2 line
Apple Macintosh
--1219

IBM PC
Apple Macintosh
--1220

IBM
Apple
--1221

Macintosh
Amiga
--1223

IBM
Macintosh
--1227

Macintosh
Apple II line
--1228

IBM
Apple
--1229

Macintosh
Apple II
--1231

Apple
Amiga
--1234

Apple II series
--1235

IBM compatibles and System 2
Macintosh
--1240

Apple Mac
DEC - Decmate series
--1243

Mac
--1244

Macintosh
work stations, Dec, Sun
--1248

If the CommInS system were to include advertisements from manufacturers and retailers, where do you think the ads should occur? interspersed with stories? in a separate category?

If you think a separate category is desirable, would you want to be able to write filter lines to accept or reject certain types of advertisements? -- or all of them?

How useful are ads that only contain text and no images?

"1) Separate categories. Perhaps subcategories for each type of ad. Not interspersed with stories. 2) Yes, write filter lines for some or none. 3) For somethings, jobs, for sale, etc. no problem." -- 1005

"1) Advertisements should be a separate category. This would allow browsing at my desire, but advertiser would probably not like this. 2) Yes, but again the advertisers would not like this feature. 3) Personal ads 'cars, auctions, etc.' need no images. The commercial ad needs images to catch the reader, but filter lines might do the same, but differently." --1006

"1) As I don't like advertising I'd prefer it were in a different category that I could choose. 2) Yes. 3) I don't think they would be very useful except if I needed an address or telephone number." --1011

"Filters should be capable of selecting ads by the various criteria a shopper or browser would really care about. A cull in the system might be more valuable for advertising than it is for news." -- 1013

"1) Separate Category. However, if need be (financially), perhaps could do like channel 2 and have sponsored articles/features when the sponsor could put identification and short messages at beginning (and more at end if desired). 2) Yes -- filters would be the key (as I have discussed previously) example: cars - Model and $ range, apts - location and price, houses - location, price and rooms. Would not want to be able to apply specific filters to specific ad categories which means a defined format/key words in ads would be needed. 3) Fairly useful -- Could include phone number to call to get more information including brochures mailed, or if bulletin board could leave name and mailing address." --1019

"1) I'd prefer ads segregated as I'd prefer to avoid them most of the time! 2) Would prefer being able to select ad topics, makes them much more useful and far less objectionable! 3) Graphics are nice, but creative text can do a lot. How about classified ads?" --1024

"1) In a separate category. 2) A filter to reject some of them. I would foresee some categories very much. 3) If I know what I want (a stereo receiver and I know what price I am interested in) then that and no picture is fine." --1025

"To be effective, ads should be at the very beginning of the intro screens. It would certainly be useful to me as a consumer to have access to information about products. Perhaps the concept of gaining revenue from ads could be stretched to a new form of 'ad' that could provide much more information about a product than we now see in traditional ads. I am not that interested in images anyway, since most ads tend to have images that have very little to do with their product, e.g. sexy girls." --1028

"1) Advertising should be a separate category! 2) Yes: filters and turn-off feature. 3) Some ads (classified variety) are OK without images. However, pictures (images) are where 'it's at.'" --1032

"1) Separate. 2) Would want ability to reject ads. 3) Might force advertisers to include some real information. With above conditions, I don't see why an advertiser would find CIS an attractive medium. As an advertiser, I would want a header type credit line on each article." --1043

"1) [Ads in a separate category] 100%, and necessary...especially since I have no vision. 2) Yes." --1051

"1) It should be possible to filter out the ads with a category description. This will avoid the syndrome of pissing users off with unwanted commercial messages. 2) Yes, I would want to be able to reject certain categories of ads (tobacco for example). On the other hand, I would choose to see other ads, depending on products or services I might be interested in at a given time. Recently, for example, I would have liked to see ads for house painters... 3) Images are not required for most advertisements that people want to see. Look at the Real Estate section of the paper, for example." --1057

"I could see having listings, but I would filter out all ads." --1065

"1) Separate. 2) Yes - topics, manufacturer, etc. 3) I am not sure." --1068

"1) In a separate category. 3) Very, images make it like a newspaper, namely hype. Text only enhances probability of more data in the ad, less adjectives and thus would appeal, given a filter to find what I wanted, a superior reference service. Given the modem, would be great for planning ethnic eating out. Some would list menu, some would only have adjectives." --1070

"1) I think they should be a separate category. 2) I would probably reject most of them. However, it would be nice to have them available if I were interested in something. 3) For some things, like classifieds, they are fine." --1072

"1) From the point of view of making ads useful - perhaps during initial browsing or perhaps they could be added to catch particular filter lines, i.e. an ad could be targeted to people looking at certain general categories. 2) I don't think a separate category is desirable (except possibly some sort of classified advertising?). 3) O.K." --1076

"1) Separate Category - The beauty of the system is in being able to choose what to read. 2) Yes - because the disk would fill up with ads and miss the news stories. 3) They could be useful if they give relevant information about a product rather than advertising pap." --1077

"Would prefer separate category of ads that can be filtered for personal interests. I think this could be a very effective advertising method - possibly very profitable. Ads can be quite useful without images." --1084

"1) Would strongly prefer separate category. 2) I think filters would be helpful to both advertisers and subscribers - for example, ad rates might be set according to how many subscribers signed up for automobile ads, grocery ads, ladies shoes, etc. 3) Still useful - people still read personals if they are catchy though less dramatic than images." --1087

"1) In a separate category, summonable by (2) keywords (such as computer hardware, sporting goods, etc.). 3) Should be highly useful as long as text is descriptive enough (with all relevant 'spers')." --1088

"1) In a separate category, hopefully with subcategories (i.e. auto, real estate). 2) Would want to be able to filter out certain categories (i.e. boats). 3) Very useful - computer ads don't need images for work purposes." --1092

"1) In a separate category! It would be incredibly annoying otherwise. 2) Yes, I would want to be able to accept or reject certain advertisements as I desire. 3) Very. A creative ad can be effective and useful in almost any medium." --1098

"1) Separate. 2) Yes, accept or reject using filter lines. 3) The lack of images is a significant problem." --1100

"1) Separate category. 2) Yes, would want to reject all if need be. 3) I would think not very useful although that is not a strong opinion. I can think of any number of items I have ordered from catalogs which had no illustrations - specifically equipment for fly fishing, for canoeing, etc. However, so much of our advertising is visually oriented that the general public may be reluctant." --1105

"1) Advertisements should be in a separate category so as to allow viewers to select categories of interest. 2) Yes, definitely. 3) They are useful for committed buyers. Not too useful for new and unknown products." --1106

"1) The ads should occur in a separate category. That way people would have a choice as to whether they wanted to be

flooded with ads or not. By using a separate category people can limit how many ads they receive. Ads should also be organized by the item they are advertising. 2) It would be important to be able to choose which ads to accept and reject. A young person doesn't want a computer full of Geritol ads. Ads should be delineated by type of item bing advertised. 3) Ads lose a lot of their appeal when they are just text (i.e. no italics, fixed point size, no graphics.) An important part of modern advertising is presentation, a pure text system cannot convey much about a product." --1109

"1) In a separate category, though retailers would want them interspersed with stories (articles). 2) Yes. 3) I don't think that images add much information to an ad. Somethings - like clothes - are purely visual, but most of the shopping I do would not require images to convey the gist of an ad." --1112

"1) The ads should be segregated from text, because of the size of the usual screen (14"). Besides, I have found that comparing the same text in the NY Times and on the screen, the 60 columns of text is nicer to read and understand. Cluttering it up with ads would detract. 2) Filtering out any material, whether ads or stories, is the great plusses of the system. 3) Certainly, not having images for ads would reduce one dimension of modern advertising." --1115

"To keep with the current functionality of the software, I think that the ads should be placed in a separate category. The user could set up filter lines to scan for those ads that he is interested in, or he could just accept all the ads. Personally, I would be interested in clothes advertisements before I go shopping for clothes on a weekend and similarly for shoes. I like the selectivity in being able to find out sales on those items that I am thinking of buying.

Ads that only contain text and no images would be okay. Though pictures are definitely a plus for advertisements, the classified ads manage to survive without them. Again, what I'm really interested in is the item the ad is advertising.

The only disadvantage I see is that image-less ads might not be able to induce the impulse of buying that a printed ad containing a slick picture of an item might be able to do." --1116

"1) Definitely a separate category - it would interfere with the continuity of the stories otherwise. 2) Yes, I think ads can be a nuisance if they are taking up disk space and you're not interested in them. 3) I feel pictures are helpful in grabbing your attention, but if you're seriously interested in a product you don't need to see it to convince you you're interested." --1118

"1) No Advertisements! 2) If you insist on advertisements, then separate filtering is a must. 3) Rather useful if specifications are clearly defined." --1119

"1) Separate category - don't muck it up. 2) Yes - most of it is a waste. 3) I think it should be limited to classified ads anyway. Who needs images? Not me." --1120

"Ads are ok, but feel they would only be effective as ads if interspersed with stories - how to do that with filter is unclear - assume this should cut costs to users. Ads without images are o.k. in general, but clearly deficient in some ads (e.g. clothes, furniture) where the visual plays a role or or when it is not a 'standardized' product." --1121

"1) Separate category. 2) Yes, I would want to filter out/in certain categories. 3) Consider newspaper classifieds, the "Want Advertiser", and computer bulletin boards. All are text only, but people obviously read them." --1125

"1) I would prefer ads in a separate category. They would be easier to filter in or out, and wouldn't take up space from the stories. 2) I would certainly want to be able to control the flow of advertisements. Given that disk space is limited, as is my time, I would like to be able to limit the number and topic of ads received. 3) Good question. I don't know the answer. How useful are ads that do have images? Some products (e.g. computers) might lend themselves to text-only, while others (e.g. Saks 5th Avenue stuff in the Times) wouldn't. Text-only would probably only be useful in the case of books and items where the appearance isn't as important as the content of performance. Given the (semi-) technical orientation of many BCIS users, computer hardware and software would be a natural possibility for advertising on BCIS." --1126

"I see no attraction to users of advertisements. I could see value in a computer hardware/software exchange feature, or in a database for pulling up detailed info/reviews on computer items not available in ads. Why would anyone want to be bombarded with more ads at their keyboard?!" --1127

"Advertising is such a ubiquitous and integral part of the [unknown word] noise surrounding us that I have a hard time imagining whether I would choose to read them if they were in a separate category. Would advertisers want to advertise? I don't know whether I would read them, but I'd like to see how I like them. Yes to the filter line, adding options is always better. Also, monitoring advertising related filter lines would tell advertisers and media people a great deal. I can't imagine how useful ads with no graphics would be - you'll have to try it." --1130

"1) [Interspersed with stories?] No, no, no!! [In a separate category?] Yes! 2) Yes! You bet! 3) Very. The value of ads on CommInS is that you could set filters to accept ads by: a retailer, manufacturer, model number, merchandise category, etc.

Don't want ads junking up articles. When I want to see ads, they should all be in one convenient, indexed database. Ads might be a good opportunity for 2-way service, possibly including order taking and transaction processing. There might be two kinds of ads, unavoidable and elective. Unavoidable ads would be very short summaries that would refer you to the 'ad-base' where you'd look for details." --1133

"1) Separate, far away. 2) If they are separate, I assume it would take an overt action to allow them into my computer. 3) A word is worth .05 pictures. A 20 word ad is very vivid, more is sensory overload! Pictures are for kids, every adult knows how big a 16 pin dual inline chip is so why show a picture? I hate those 'before' pictures of runny noses, bay window bellies, cousternated-constipated and other expressions -- especially those guys with their beady eyes peering out at you from under their before XYZ male pattern baldness! Just thinking of such ads makes me so mad, I get two months behind completing this questionnaire." --1134

"1) I would find it very aggravating to have to page-down through advertisements in stories. I'd keep them separate. (But I don't know how you could sell ads if you didn't know whether people read them.) 2) I would like to be able to filter the ads. 3) Some ads might not suffer from not having pictures. For example, I would like to have instantly available movie titles and times on a terminal at home - I wouldn't really need pictures." --1137

"1) I think advertisements from manufactures and retailers should appear in a separate category. 2) I would like to be able to write filter lines to accept or reject advertisements. 3) Ads that only contain text are useful because they may be searched through for occurrences of specific information needed." --1138

"1) In a separate category. 2) Yes, all of them. 3) Useful only if they have specifics and price. No image = no problem." --1141

"Ads would be of no interest to me at all, so it is hard for me to judge." --1148

"1) If the ads could be keyed to the filter lines, then it would be o.k. to include with the stories. Otherwise as a separate category would be better. 2) Yes, filter lines would be good. Will each advertiser provide key-words categorizing the types of advertising being done or would the filter act only on the words used? 3) In very specific categories; very useful. If I am looking at articles on Japanese cars, then I am clearly already interested and my attention does not need to be caught by the pictures." --1150

"1) Separate. 2) Reject all. 3) Useful, but not desirable. All my answers stem from the fact that the information density is not as much as I would like it to be, even without ads. Ads would delete it further without compensating value. As it is, I find many of the articles tantalizingly short." --1152

"1) Difficult to say - who'd actually take time to look at the ads as a special category except people who love to shop? But it might be annoying to have the ads crop up with stories - I'd love no ads - I'd rather pay more than to have to watch and read buy! buy! buy! every time I use the system. 2) Yes, maybe sometimes I would want a particular kind of ad, if I was looking for something special. 3) Just text is fine for serious purchases where you're more interested in features and quality than in looks - they won't sell clothing. I would love to have concert listings." --1160

"Advertisements should definitely be in a separate category to be accessed by filter lines so one could 'browse the ads', but there should also be a way to access the entire 'at file'. It would be nice to have graphics with ads, but those of us who would really use them to shop for sales would probably be happy without them." -- 1162

"1) Yes, in a separate category. 2) Yes. 3) Very useful. If I want to buy something, I'd like to find out who might be interested in selling it to me. If I can get a clean list of vendors, I will be more likely to use these vendors." --1163

"Definitely in a separate category. I think ads in a separate category with a specific subject would be a useful addition. I could then scan the ads I wanted in the same way that I scan the articles. Text ads are fine for PCs, accessories, etc. Images could be needed for other items. You might want to check on how many users have EGA capability." --1165

"1) and 2) Ads should be classified and be callable (or ignorable) per filter lines. Global category could call or reject all ads. 3) Images are a useful enhancement but not a necessity. Ability to vary type size (headlines, text, fine print) is important." --1174

"1) Definitely don't intermix ads and articles! Busy users have enough problems with 'junk phone calls' and the like! Mixing ads with articles would negate much of the value of the system. The goal of effective advertising shouln't be just maximum exposure (the crude 'shotgun technique'). Rather, it should be targeted for those users that are interested in them. 2) Ads are information, just like the articles. I would want to filter them, just like the articles. With effective filtering, users will read ads, but only those they are really interested in. I would like to see ads, but only those that I am interested in. 3) Videotext efforts (like the aborted Knight-Ridder, Times- Mirror, and AT&T projects) have vastly overrated the need for graphics, especially color graphics. High-resolution, animated color graphics is nice, but not if speed, cost, or functionality are traded off for the pictures. In today's technology, the monochrome text display is still the most cost-effective. A text-only ad can be quite effective if it is targeted to an interested audience; look at how fat and prosperous the Boston Globe is with classified ads, which are a crude form of targeted advertising. Fancy graphics will have their place eventually, but to be effective they must be targeted to an interested audience." --1178

"1) Ads should be in a separate category - ads interspersed with articles would waste space and be of little use to me because I generally ignore ads unless I am looking for a specific product/service. 2) It would be very helpful to have filter lines catch ads of specific interest. Even better would be to have ads available on the 2-way system accessed by the query language. I would like to be able to reject ads I was not interested in. I would not read ads if I did not want to buy something. 3) I have poor vision and can't see images very well. A written description is most useful to me." --1181

"1) A separate category. 2) Yes. 3) Depends on what is being advertised." --1184

"1) In a separate category. Organize it like a mail order catalog, phone book yellow pages, Boston Computer Society Vendor's Book. Provide discount to Boston CommInS Users. You might consider home shopping venture or ability to access Advertisements Home Shopping from Boston CommInS System. 2) Definitely need filter lines to narrow/focus search time (computer time). 3) If you know what you are looking for, you do not need pictures. The goal is to provide user friendly quick service." --1187

"1) Separate category. 2) Yes!! Being 'forced' to accept ads or to have them take up disk space (and possibly cause news to be erased) would make the system USELESS to me. 3) Who cares? But seriously, classifieds work." --1188

"1) Ads should not be interspersed with stories. Any method of advertising that does not permit me as the user to ignore the ads is not acceptable. 2) A separate category is not only desirable, but essential. I would use filter lines to accept/reject ads by type. 3) Ads without images are useful for certain things. Both the Yellow Pages and the classifieds do very well getting across specific information without images." --1192

"1) Definitely in a separate category. I find ads to be quite valuable at times - but I don't want to have to sift through them to find the news. 2) Yes. The ability to selectively access those ads that are of personal interest would be a great advantage - better than not having any ads at all, and much better than being forced to read ads I'm not interested in. The reason I mind unavoidable ads on this type of system, while I'm not really bothered by ads in magazines or newspapers, has to do with the narrow 'bandwith' of the CommInS system, with its subjective effect of peering into a huge database with a tiny window. I don't need that window to be any more cluttered with things I'm not interested in seeing. 3) Depends on what's being sold, and how. No doubt there are products for which it would hardly make sense - but I think there are many for which it could work well." --1195

"1) Yes, a separate category. 2) Yes. 3) See Want Advertiser." --1197

"1) The user should have the option of choosing whether the ads occur interspersed with the stories or in a separate category after logging on. If the option is not available, it would be better to intersperse the ads with the stories than to place them in a separate category. Having the filters which are ads marked with a special symbol would be desirable. 2) In the case of a separate category, it would be helpful to be able to write filter lines to accept or reject certain types of ads. 3) Ads without images would not be very helpful unless the text was detailed." --1201

"At first blush advertising on CIS would seem to have very little to do with the purpose of the project (electronic delivery of news). If the purpose of advertising is to replace or defray user fees or to support wider (underwritten) distribution then perhaps it would be tolerable. I certainly think ads that were specifically related to the technology of on-line services and computer equipment specials could have some use for CIS users as a separate category, not interspersed with the news.

I do think that it would be important for me to filter ad categories to those of interest, especially if I'm paying for the service in the first place.

I do not think images are essential for advertisements that would be useful to me, but some advertisers might be reluctant to spend $$ without the 'sizzle' graphics often lend to the sell. Innovative computer graphics however, do have a high interest level for me regardless of their purpose.

In conclusion, I think you need to examine the motives for including advertisements in CIS very carefully. In this context I think it advisable to study the international experience with 'ads' in videotext services, as well. As a marketing ploy, ads in CIS might be attractive to advertisers owing to the select (read: elite) nature of the user base. And as an afterthought, given the nature of the user base, perhaps ads of 'position available', 'situation open', 'part-time programming' or 'consulting task' could be the most salient form of ads for CIS. (Also 'business opportunity'.)" --1203

"I would be most happy to find the ads in a separate category. Every successful advertising medium, it seems to me, puts its ads where the user is used to finding them and expects to find them. Subliminal advertising and advertising that catches the viewer by surprise meets with less acceptance. I, for one, would be irritated to have the flow of non-commercial information I expect from the service (and which is hard enough to follow on computer screen) interrupted by ads. On the other hand, I would probably gladly seek commercial ads out if I had an easy way of finding them when I was ready. I don't think advertising succeeds when it is handled as something the viewer would rather avoid. People generally like and even seek out advertising when it is presented honestly and forthrightly. 2) I don't know how access to ads ought to be designed; I guess that would depend on the kind and volume of advertising available. If, for instance, it were for computer hardware and software and there were a thousand different products involved, I -- and I would bet the advertiser as well -- would appreciate a way of singling them out. 3) I personally dislike computer ads with graphics. The graphics are generally unappealing and childish. Granted, a catchy graphic might draw my attention -- but generally I would be more likely to seek out information on a given product or category of product that interested me to begin with -- in which case I'd want to know about price, availability, etc. If the graphic supported that information with illustrations of the product, say, I might welcome it -- but images meant only to grab my attention would ultimately have the opposite effect on me." --1204

"I would like to be able to filter advertisements such as furniture, or automobiles etc. I believe advertising sales could be useful especially if brand names and full descriptions of the items are used. Just as in catalog purchasing, familiar brands have the advantage. Also having a printout of advertising might lead to truthful advertising.

Certain items can have a great advantage in this type of advertising. Those items where sight is of no advantage, such as financial instruments. I can see shopping for mortgages, bonds, stocks etc. Computers and computer- related objects that need teaching or long explanations, are also suited. This way you can take advantage of your best salespeople to give the presentation.

I don't care to see advertising unless I want to see it. That would just be too much." --1205

"Sorry this is late. I was out of town for a few days. Also I've got a new 3" diskette laptop that I want to try the program on: I am an art historian and a curator and find the program fun and a useful way to find a broad spectrum of information while still filtering unwanted stuff out. I think other academics would therefore also like this. If you market nationally in art historical journals (Art Journal or a classified in the College Art Association Newsletter), I think you'll pick up quite a

few people in the Boston area. Oh, I just reread the question and see you're talking of something entirely different: 1) in a separate category. 2) Yes, certain types. 3) Images are desirable but it would be useful to get advertisements without them too. 4) When are you going to get photos with news items?" --1206

"In response to this question there are definitely two sides to this. As a user of the system I would put the advertisements in a special category so only those who are interested in them will have to view them much like MCI mail, if I were an advertiser and I was interested in the revenues produced by the ads, I would most certainly intersperse them with stories so they would be seen more often. 2) I think a separate category is preferable and it would be best to have filter lines to retrieve or reject certain products one is interested in. 3) The ads without images will be like pages of want ads - will not attract much attention - would focus on creating an image." --1207

"As a user, I would value the ability to search through an advertising database much the way I now search through news. (i.e. Ads separate from stories and subject to filter lines.) The result would be sort of an electronic yellow pages for consumers with two important advantages:

1) More information available in an ad - can feature and detail products and services. 2) Currency. Can advertise tomorrow's sale, new features, quote prices, seasonal specials.

This second feature adds to the value of the first since one can ensure information will be topical. Also, ads under different headings can target different audiences. Lack of text and images is a big drawback, but such ads would still be useful. (What ever happened to the Teledon system of transmitting graphics? They had set up a demo project in Ottawa a few years ago.)" --1208

"I'd accept ten seconds of ads at log on, or screens between stories. Keep them short. I'd rather pay for the service than have ads. Screen text only is fine, then they can get creative with the text. If filters existed for ads, I would filter the ads out. A filter and advertising are antithetical, would anyone choose to read the ads? How about changing companies to post their press releases on the system as though it was news." --1209

"1) In a separate category if it must be at all. Do not want advertising. 2) Yes, I would want to filter out most. Perhaps leave in classified if available (help wanted, real estate, autos etc). 3) Classifieds would be okay." --1210

"1) In a separate category. 2) Both. 3) Very useful. Trying to sell ads to manufacturers and retailers would be difficult since there is no way to insure that people would read them. However, if most ads offered a discount by saying where the ad was seen, I think a lot of people would read them. It would then be easier to sell the ads to manufacturers and retailers." --1214

"Advertisements should be in a separate category with ability to filter lines for selective retrieval. Text only ads are useful." --1216

"1) In a separate section, similar to classified advertisements. 2) Yes, ability to select ads of interest would be a requirement to make the service useful. 3) Quite acceptable, especially given limited resolution of current technology for display on PCs." --1217

"1) Advertisers would probably only agree if ads were interspersed in stories, as in the newspaper, therefore the question isn't relevant. 3) Ads with only text are useful if they (i) are catalog type listings and (ii) target a very specific audience." --1218

"1) Ads should be separate, in a separate category. 2) Filters for ads would be nice but "rejecting all" would be all too common. Should probably have a fixed filter, i.e. can specify somewhat but not reject all. 3) Minimally useful unless they provide special information or discount incentives." --1219

"Ads should be in a classified section under different subjects so that one can control the reception. They could even be a separate offering. One could use the filter feature to 'shop' for merchandise. Filters could include the product, price range, manufacturer, etc. - almost like a query system. Textual descriptions and pseudo graphics (text) probably are good enough for most goods. In general, one needs to consider the vendor requirements (retail, mail order, telemarketer, etc.) and the

way they can 'view' and order merchandise. Consumer durables probably would be supported differently than real estate or employment ads!" --1220

"1) Separate. 2) Yes. 3) O.K. as long as text is informative and not PR hype. I can't see that images are such a great addition." --1223

"Manufacture ads should definitely be placed in a separate category which is accessible using filter lines like the news section. In this way, the ads will not be a nuisance when reading news, however when one wishes to see all ads on a particular product or by a particular retailer, they can receive this information in an organized fashion using filter lines. Graphics are definitely a plus for advertising, however I think they can still be useful without them." --1227

"I would be very displeased to have to wade through ads to read the articles. However, I would like to have ads available - especially mail order specialty ads (photo and computer stores, for example). I would like to be able to pick the ads I want, and when I want them. So yes, filter lines would be good. For me, text would be fine - print ads catch your attention with pictures, but don't impart a great deal of information." --1228

"1) I would prefer to see the ads in a separate category. This area can be subdivided as many times as necessary - the greater the subdivision, the greater chance that I will read it. I would not like to see ads interspersed in stories; the main reason is the non-continuity of printed material. 2) The filters would be a nice feature but that would be unfair to the advertisers. 3) Pictures are nice but if I want to purchase a specific item, I already know what it looks like." --1229

"1) Advertisements would be fine, if in separate filters: ads hardware, ads software, ads services, etc. 2) Yes, the ability to reject ads would be great. 3) Text and no images would be of equal use, but probably less interesting." --1231

"1) Separate categories with flag words just as with news articles such as CAR, FURNITURE, SUIT. I do not like the idea of ads interspersed with stories. 2) Yes. 3) Depends on the format, but images are more desirable. Also, being able to pick the location of the ad: New York, Boston, would be helpful." -- 1233

"Please, no advertisements." --1234

"1) Definitely in a separate category. 2) Yes, it is very important to accept or reject certain types of ads. 3) With current PC graphics, about 90% as good. With EGA-or-better graphics, perhaps 60%. In print media, I do read the ads, because I can pick and choose. In TV, I almost always zap them, because they are intrusions and usually unrelated to the show's subject or my interests. How many people our age need Denture-Cream or British pills? The beauty of your service is a highly targeted selection of reading material. The same idea should work equally well, if not better, for advertising. Suggestion: Create about ten key 'demographic' criteria for advertisers and readers to put in their filter lines. Examples are age, sex, computer type, computer skill, occupation." --1235

"1) Separate category. It's hard enough to filter out articles that are of no interest. Users should be able to turn them off completely. 2) Yes, I would want to have some control over the ads. Remember that the ad text would not be distinguishable from news text on a monochrome system. When you read a magazine or newspaper, it is immediately obvious which are ads and which are stories. It is not fair to the user to be presented with ads which could easily be mistaken for news. It would be very useful to be able to search for ads, especially if the published base were expanded. Each type of ad should be in a separate category to facilitate searching (and filtering out) ads. 3) Ads with no images would be of limited usefulness unless the user is equipped with powerful filtering and selection tools. When I read the vendor messages on a BBS, I find myself becoming fatigued very quickly." --1240

"1) I would prefer to see ads separate from stories. In fact, I would be quite annoyed at finding ads interspersed with the stories. 2) Yes, I think a filter line would be very useful and desirable. It should be possible to reject all of them if you want. 3) Ads that contain only text can be very useful if well written." --1242

"1) In a separate category. 2) Yes, I would want to select certain ads by filter lines (auto, employment, real-estate etc.). 3) Depends on the items to be advertised. Text is not very useful for clothing, fashion or cosmetics type of ads, but good for autos, real estate, employment, airline-travel etc." --1243

"Ads should be in separate categories. Of course, you want to write filters to select ads for items which you are interested in - particularly for 'classified ads'. For instance I recently looked through classifieds in the 'appliances' category for refrigerator ads. I had to read (scan) all of them to select the refrigerator ads. I think text ads are very useful - sort of like most of the listings in the yellow pages." --1244

"1) A separate category. 2) Filter out all of them. 3) That (text) would suffice." --1248

June 1987

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
74	0.00	45.00	150.00	600.00	1440.00	438.65
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
76	0.00	5.00	10.00	15.00	70.00	14.16
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
72	0.00	3.00	5.00	15.00	60.00	10.57
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
75	0.00	5.00	10.00	15.00	60.00	10.91
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
71	0.00	0.00	0.00	3.00	30.00	2.29
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
73	0.00	8.00	25.00	50.00	600.00	53.46
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
74	0.00	4.00	10.00	20.00	300.00	19.89
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
74	0.00	2.00	5.00	10.00	100.00	8.20
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
73	0.00	0.00	0.00	1.50	15.00	1.40
55 I find that the information available is of: little interest--great interest						
80	2.00	6.00	7.00	8.00	10.00	7.16
70 I find the system has: no value to me--some--great value to me						
81	2.00	5.00	7.00	8.00	10.00	6.91
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.						
79	0.00	10.00	20.00	45.00	480.00	35.50
93 My interest in the system is: decreasing--unchanged--increasing						
81	0.00	4.00	5.00	6.00	10.00	5.18

107 In my filter, I select stories by the CATEGORY field, e.g. (category: lifestyle): not at all--some--exclusively

79	0.00	2.00	5.00	7.00	10.00	4.74

108 In my filter, I select stories by the SUBJECT field, e.g. (subject: arts): not at all--some--exclusively

80	0.00	5.00	7.00	8.00	10.00	6.54

109 In my filter, I select stories by the PRIORITY field, e.g. (priority: flash): not at all--some--exclusively

80	0.00	1.00	2.00	6.00	10.00	3.49

110 In my filter, I select stories by the AUTHOR field, e.g. (author: reston): not at all--some--exclusively

80	0.00	0.00	1.00	3.00	10.00	1.62

130 Of this time, I use the two-way features with my modem ___ minutes/day

77	0.00	0.00	0.00	1.00	150.00	3.55

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

48	0.00	0.00	0.00	2.00	90.00	5.06

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

48	0.00	0.00	0.00	1.00	75.00	3.64

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

48	0.00	0.00	0.00	1.00	40.00	2.24

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

48	0.00	0.00	0.00	0.00	20.00	.74

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

75	0.00	0.00	0.00	3.00	1440.00	39.13

179 I will be in greater-Boston this summer and will continue to use the CommInS system: no[0]--yes[1]

80	1.00	1.00	1.00	1.00	1.00	1.00

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

49	0.00	0.00	0.00	3.00	100.00	4.06

181 I use the 2-way system __ sessions/week.

71	0.00	0.00	0.00	1.00	14.00	.80

182 Each 2-way session lasts about __ minutes.

49	0.00	0.00	0.00	10.00	75.00	7.62

183 With the CommInS, I use a mouse: never[0]--sometimes[5]--often[10]

80	0.00	0.00	0.00	0.00	10.00	.39

184 With the CommInS, I use a trackball: never[0]--sometimes[5]--often[10]

80	0.00	0.00	0.00	0.00	2.00	.04

185 With the CommInS, I use a laser printer: never[0]--sometimes[5]--often[10]

80	0.00	0.00	0.00	0.00	10.00	.54

186 With the CommInS, I use the "print on arrival" feature: never[0]--sometimes[5]--often[10]

80	0.00	0.00	0.00	0.00	10.00	.74

187 I would like a "macro" language in the software: no[0]--maybe[5]--yes[10]

77	0.00	5.00	5.00	8.00	10.00	6.12

188 I would like more control to be able to select or deselect stories by date: no[0]--maybe[5]--yes[10]

79	0.00	5.00	7.00	9.00	10.00	6.87

189 I would like a printer spooler built into the software: no[0]--maybe[5]--yes[10]

78	0.00	4.00	6.00	10.00	10.00	6.21

190 I would like to be able to fill in these monthly questionnaires via the modem: no[0]--maybe[5]--yes[10]

80	0.00	3.00	5.00	10.00	10.00	5.96

191 Through the modem connection, I would like to be able to upload stories or information to a "bulletin board" that all CommInS users could read: no[0]--maybe[5]--yes[10]

80	0.00	2.00	5.00	8.00	10.00	4.93

192 Through the modem connection, I would like to be able to upload electronic mail messages addressed to individual CommInS users: no[0]--maybe[5]--yes[10]

80	0.00	1.00	5.00	7.00	10.00	4.44

Issue 1:

Conventional newspapers use various conventions and traditions to help readers skim the news for major events or for events in certain categories. For example, newspapers use headlines, photographs with captions, and/or placement of stories on certain parts of certain pages to help readers locate stories of interest.

While the CommInS system does not have analogs for photographs, the filter lines do fill some of the same functions as headlines and page placements.

Will you please comment on (i) the extent to which you miss these types of features found in regular newspapers and (ii) the ways in which the CommInS system could incorporate new features to supply some of the functionality that you miss in regular newspapers.

"Use key words in article 'body' to capture articles - frustrated by high number of 'News Summary' articles superficially treating these key words captured." --1009

"i) I do miss headlines because they are more specific and provide more information than filter lines. ii) Make summaries more like headlines, not just first few words of article." --1005

"(i) I guess I strongly dislike sorting through the 'dross'. (ii) Can you use symbols to represent certain categories or subjects? Can you sort articles into groups based on the filter line which caught them? Then could browse a particular topic at one time. Symbol ideas: $: Finance, =: Ecology." --1024

"(i) Do not miss them. (2) Not relevant." --1025

"(i) Not missed much. (ii) Biggest problem, of course, is lack of resolution, density, and ease of scanning on CRT vis-a-vis printed medium." --1041

"Since the paper must be read to me, I do not have this problem. I would like to scan backwards, as well as forwards on articles while sitting at the computer." --1051

"Here is the 'broken record' again. The single most useful thing that could be done is to find a way of eliminating duplicate articles of the same article. Conventional newspapers do this naturally. This system must find a way of doing it. Photos will come soon, anyway, as computer graphics get better. You might think of finding a way of having a 'bin' to catch 'Heard on the Street' or George Will..." --1057

"Filters allow me to edit the paper the way I want, I like it better than headlines." --1065

"The overall visual picture of the 'page' is missing - we just see an index - how about multiple windows? Or, let us quickly mark articles for possible reading and then we can more slowly scan them to make final decisions." --1068

"I do not miss these features and do not think CommInS could successfully incorporate them." --1072

"(i) I miss them, especially when compared to taking a quick glance at newspaper. (ii) The problem here is that headlines etc. are reflections of editors notions of what are important news items. To do this in Boston CommInS the user would have to [unknown word] the weight/importance of user selected items." --1076

"The various digests help (and news summaries). We usually read those and then add/change filters of something that is mentioned in the digest that we want to read. If that facility could be expanded it would help. A listing of all articles - including keywords required to catch them, would be a joy." --1084

"(i) I don't miss headlines; the space constraints and 'cuteness' syndrome can make them misleading. (ii) In summary listings, dates and sources get in the way. I often find that I skim the summaries, then go back after a new story has come in, and 'see' more of the listings, which are now shuffled down one paragraph each. Maybe format changes would help?" --1087

"(i) I don't particularly miss these features because I read a paper in that context. If this service were to substitute for a newspaper, as index would be useful especially if it could be a cumulative index covering variable time frames!" --1088

"Don't miss pix. Subheadlines, comment blocks would fulfill some of the same needs." --1092

"1) The 'missing' features comprise a set of 'trade-offs' I accept along with the advantages. The 'conventions and traditions' listed are diminished in usefulness by the 'noise' of advertising. 2) Date selection of articles could help. Ability to direct captured articles to a subdirectory by date, or just keep a separate category which deletes 'older' weather reports, news summaries, etc." --1096

"I do miss headlines and page placements a great deal, but I'm not sure how to include in CommInS." --1100

"I find the system lacking and I miss the photographs and graphics that are typically found in newspapers. I frequently find myself referring to the newspaper to look at the pictures that accompany articles (especially front page and science times articles). I also refer to the newspaper to see what important stories my filter lines miss. Layout is an art; something is lost when there is only 'flat' text. Inclusion of LaserPhotos as graphics associated with particular articles would be useful (although I'm sure there would be a bandwidth problem). At the far end of the spectrum, an APA (all-points addressable) display could be used to view a typeset version of the paper (this would allow the full layout to be viewed)." --1109

"I have always thought that the major weakness of BCIS was the fact that it is too deterministic. On one hand, the filter catches only those things you put into it, thus saving effort finding articles. But, BCIS does not have editors deciding what will be important, what is interesting. I find that most interesting articles are not on the front pages. The newssummary helps, but does not replace several like-minded editors scouring the news for me. Instead, I have to play editor with the AP wireservice urgents. What to do? Summaries of all articles in the Times broken down into sections - the 'A' section, 'B' section, Business, Travel, etc." --1112

"I miss the way newspapers use sections to divide the paper into front page, sports, business, arts and leisure, etc. Usually I turn to specific sections of the newspaper as I read through it. What I would really like to see is a filter line which would contain 'front page', 'sports', or 'business'. These lines would just capture the whole corresponding section of the NY Times." --1116

"I really don't miss these features much. I find the summaries much more helpful as they get right into the story. Headlines can sometimes be misleading." --1118

"Don't need the photographs etc., but the notion of a 'first page' is a good one - as well as a digest of key issues whether or not it matches the filter." --1121

"(i) I don't much miss these features. I find the filter lines and summaries allow me to select what I consider important, rather than relying on an editor. (ii) I've suggested before, global filter lines. I don't think much needs to be done in this respect. (One thing I do find interesting is reading the NYT's page 1 schedule - it gives me an idea of what they think is important." --1126

"I simply don't miss them at all. The system is well laid out as is!" --1127

"I like the lack of 'headlines', boldface, etc. in the CommInS System because it is less distracting - you can find what you want. Newspapers are designed to capture your interest on things that take time to read but really serve no purpose." --1130

"Let users place selected filter lines in 'mainframe' mailboxes then, in reverse chronological order, let them browse the abstracts over the modem using a secondary filter to go back as far as 12 months or more." --1134

"The first sentence of an article is a poor substitute for a good headline. Often the first sentence doesn't convey the gist of the article, especially if the author tries to be cute in the introduction. Hence, with CommInS, it's harder to make quick decisions about whether or not to read an article." --1137

"(i) I really don't miss headlines and story placement features, I would like to see photos and captions though. (ii) Have a headline category for one to capture and view, then search for the associated article." --1138

"(i) Not much, particularly since we can review the 'News-in-brief' column. (ii) Even better avoidance of highly redundant articles. Often only a sentence or phrasing is changed. Since most users use CommInS to get more in depth information, only the most comprehensive (longest??) versions should be included." --1141

"(i) Would not miss headline as it appears in paper. (ii) Could rank story in importance by where it will appear in paper - e.g. front page material, main feature, etc." --1043

"(i) The 'snappy' presentation of story highlights which marks the better newspapers is certainly missing on the CommInS system. The result is that CommInS headings tend to give information on the content of articles rather than the conclusion being drawn by the article. (ii) Maybe the system could show not only the first sentence of an article, but also the sentence in which the key words occur." --1150

"(i) Not at all - the filter is far more accurate and discriminating. (ii) Reference trail to related stories, possibly a way to bring related items into filter automatically." --1152

"I hate the repeated stories from the wire, my filter may catch the same story ten times. The urgent-regular news distinction is not a good measure of overall news importance (news value) such an indicator would be helpful. Pictures would be great!" --1158

"Since I use the system exclusively with a speech synthesizer, I cannot respond to these questions." --1162

"I'm quite used to the CommInS format and don't miss much, except headlines." --1165

"Lack of newspaper-style visual variety renders CommInS difficult to skim and thus slow to use. At the very least, listing the principal filter line matched, and any other terms matched, in the summaries would enable the reader to skip over many articles collected by coincidence but not of interest." --1174

"Unfortunately, to really compete with newspapers a high-resolution flexible windowing system is needed. In the

meantime, the CommInS system is not too bad. I've found that the quality of the raw information feed could be better, not so much in terms of the content, but rather in terms of the assignment of Category and Subject fields. For example, sports scores (which I am not interested in) still slip through the filters occasionally. As currently set up, the CommInS system is harder to use for general 'skimming' or 'thumbing through the pages'. Good filtering can and does more than make up for this deficiency. As for making it easier to skim, plain old higher speed would be helpful, perhaps by intelligently 'anticipating' what the user will want to look at next, and pre-fetching it from disk." --1178

"(i) I miss headlines and the placement of articles. I like to be able to see what is on the front page of a paper and feel that someone has selected this material as the most important current news of the day. I like to look through the paper, reading headlines, looking for articles that interest me. I do not know ahead of time all the topics these articles may cover and thus cannot write a filter line to capture them on CommInS. A newspaper includes all the articles the editors found newsworthy on that day. Using CommInS I cannot be sure that I haven't missed an important story. (ii) Filter line to capture all articles on front page of newspaper or what AP considers important news. Provide a list of all articles in a paper (e.g. list of all headlines in NYT). Be able to access full text of individual articles by simply highlighting desired article." --1181

"Don't really miss them." --1184

"Many columns and tables of data appear in accordance with a schedule, daily, weekly, etc. Specific filters, subject headings (titles) would aid in retrieving just that data." --1187

"The summaries are usually more indicative than headlines of what is to follow, so I don't miss the headlines. By proper selection of filter lines a user can group articles of similar interest together her/himself, so I don't think the grouping or page layout is important for the system. I guess that means I don't miss those features in newspapers...But, could you please give us funnies?! esp: Doonesbury, Bloom County, The Far Side." --1188

"I miss the features like headlines and placement quite a bit. The summary screens fill in for the headline a bit, by allowing me to read the 'lead' of the story and decide whether or not to pursue it further. However, given the design of the menu system, once you go into a 'read' mode, it is clumsy to get back to the summary mode. I'm not sure how CommInS could incorporate these features. Perhaps through a graphics program, similar to the English videotext system, which could provide headlines and limited graphics. I don't especially miss photographs on CommInS, as I don't pay a lot of attention to them in the newspapers. Mostly what I miss I think is the ability to easily browse through the news, through different sections of the paper (i.e. front page, front page of the sport section, front page of metro and business) etc. If I had the capability to build a 'front end' onto the CommInS system, I could replace some of this functionality. For example, a tiered menu system, which would sort stories into broad categories (sports, business, international news, etc.) and then sort, say, sports stories into baseball, football, etc. would begin to get at this." --1192

"Extreme extent. Can skim very fast with conventional paper." --1194

"A few items come to mind here:

-Yes, I do miss having photographs and other graphics. On the other hand, newspapers often don't use all that many photographs, and of those they do run, many are really filler items that contribute little to the reader's knowledge or understanding. The same is true of graphs and other non-photo graphics: there are a few valuable ones in the midst of lots of filler. Given the bandwidth problems involved in transmitting complex graphics, I think it's not going to be the easiest or cheapest way of upgrading CommInS.

-CommInS suffers from not having the equivalent of headlines. The summaries are sometimes adequate substitutes, but sometimes not: often, the first four or five lines clipped from an article give no clear sense of what the key facts presented in the article are. Actually, CommInS could do better than headlines in newspapers, though it would take some work. I'd like to see each article in the system accessible on three levels: first, a 'headline screen' with one-line (no longer!) 'headlines' for each article; second, a 'summary screen' which has true four to six line abstracts, rather than the indiscriminate clip from the beginning of the article that we see now; and finally, of course, the article itself. Of course, certain 'articles' would require special treatment: you can't write an abstract of a list of stock quotations or batting averages. Another useful addition would be an option to be able to trace back from an article to earlier articles on the same topic without having to enter separate queries (shades of hypertext?).

-The physical layout of stories in a newspaper does indeed economize on reader effort - but at the expense of substituting the editor's judgment as to what is important for that of the reader. This is not just a theoretical point; I think newspapers make mistakes in such choices quite commonly, though I am willing to concede the extenuating circumstance of deadline pressure on a daily paper. Perhaps CommInS can use the user's ranking of filter lines as a guide to building a personalized, prioritized list of the one-line headlines I proposed above. More elaborately, CommInS could use the user's stated interests as a guide to layout of articles on the screen. But this is problematic for other reasons." --1195

"I do not miss these features - they only interest me in newspapers in order to decide what to read. The CommInS system takes care of that process for me by scanning for key words etc. So I don't think the system needs things like headlines etc. (or equivalent features)." --1201

"I don't miss them as much as I thought I would, although it would be nice to figure out some way of passing on such an editorial statement. I find that it is most irritating to lack the photos, though. And I also would like to see the pre-selection photos sent in. In fact I rather enjoy the absence of the headline size differentiations. Photo captions would be of interest to me, as well as pre-selection photo captions if such existed." --1206

"I do not miss the types of conventional captions most newspapers use - what might be useful would be to pick up an index of stories for the day, such as the Times publishes - not really possible for the AP." --1207

"No ideas." --1208

"I miss the comics a lot! No problem with headlines or page placements. Separate Issues: I'd like to have a filter option to see all stories that match two filter lines. Any two. Those stories are 'really mine'. I'd like to be able to update the whole filter by calling on modem. I'd like a function key for Alt -R." --1209

"Miss a great deal, but do not trust the editorial capacities of many persons. If I needed the material, I'd be willing to wade through it all (unedited) to get what I want/need." --1210

"I miss the photographs most of all." --1216

"You should incorporate something similar to the 2-column news summary provided by the Wall Street Journal." --1217

"(i) Local arts/entertainment. Sections of the paper - Business, Real Estate, etc. (ii) Need to organize CommInS more like a newspaper - mail sections, then break down filters." --1219

"The filter lines and summaries pretty much cover the need. Blinking, bold, and oversize text could get somewhat obnoxious! Pictures, on the other hand, really complement some stories, and are almost necessary in others!" --1220

"(i) Not much - selection by subject compensates for lack of headlines. But summaries can't always give the gist of a story - putting headlines would help here." --1223

"(i) I think the priority 'urgent' is poorly used. (ii) I waste time browsing stories that are repeated (presumably because some subscribers missed it). This is not prevented by the (date: [date O]) condition I have on almost every line; stories are often repeated a day or two later with an updated date." --1225

"I do not miss photographs very much. However, the addition of headlines, headline size, location in paper, and sub-headings within articles would be nice. I guess that human editor of some type would help. All we really need is answers to the questions - How important is this story? How new is the information (is it a follow-up story)? The story priority system should do this, but since Bulletins and Flashes are used so little, there is little benefit to the system. If the Urgent category had a sub-heading denoting Very Big, Big, Medium, and Small stories, it would help. Also, I would be very glad to see a mechanism for limiting the number of articles caught on a given event. If events got codes, one could request the system to keep only a certain number of articles per event." --1228

"(i) With CIS I miss news until I include it in my filter. (ii) Headline summary with filter to capture it. Access to Boston news." --1229

"I do use headlines to scan the newspaper, then read stories that appear important or interesting. A filter line for headlines, if operable, could contain only headlines. A user could then access articles based upon interest in the headline." --1231

"(i) I don't miss them too much, the system works pretty well in letting you know in the summary what the article is about. (ii) Would do a better job at reducing the redundancy of articles coming over the line (i.e. deleting the previous version of the article). Also, a formal heading would help sort through captured information faster." --1232

"Being able to have filters is sufficient (and the best thing about the system). I don't think that there is a need for a feature like this." --1234

"I like the idea that newspapers come in sections. So, if I'm not interested in sports today, I can skip that section. I also like NYT's 'index' on front page of second section. But on CommInS I would want it in more detail. Why not have tree-structured filters. Pressing <F2> would get me a diagram of the tree. Branches might be 'work', 'Kathy's work', 'medicine and health', etc. Selecting one branch and pressing <F2> again would get a screen of five or six windows. In each window would be the top three summaries for that window's filter line (or maybe just three headlines). Highlighting one item and pressing <F2> again would bring up the article in full text. Exiting from the article would return to the 5-window screen. To add a filter line I would add a window at the appropriate place in the tree. Any such window would automatically inherit all the macro filtering features of windows above it in the tree structure." --1235

"(i) I don't miss them because the filters do most of that function. 2) I'm not sure how to incorporate them without using very slow bit-mapped graphics." --1242

"(i) I do miss photographs with captions, headlines in large font, and cartoons, very much. (ii) One could add headlines in larger font to articles or summaries of articles with limited graphics for cartoons or crossword puzzles." --1243

"*Additional categories/subjects, more fine tuned. Also it would be nice to have a selection window which collected all the* possible subjects and categories and allowed you to pick from them, when working on your filter." --1244

"Newspapers use these conventions to convey their assay of the relative importance of news. I prefer to do my own estimating. I do not miss headlines at all." --1248

Issue 2:

More generally, can you think of ways that headline size, screen layout, and/or color could be used either at the transmitting end or at the receiving end to improve the CommInS service?

"Make information in header or file in different size or color." --1005

"I don't have any answers to these questions because it is good the way it is. My complaint is with the Associated Press. The quality of the articles is terrible. I'd rather have a different news service in addition to the New York Times." --1011

"Headline size: how will this affect printers without graphics capability? I'm also concerned that screen layout resembling a newspaper would be confusing. Color could be very helpful. Another way to prioritize articles. Could assign colors to symbols also-" --1024

"-would not want it." --1025

"Should not try to emulate newspaper. Rather use features of computer: 1) can tag stories by 'importance', etc. Use windowing and overlays for easier filing and scanning. 2) System and user." --1041

"Perhaps you could support dual screen PC, with say story [unknown word] summary in color, 66 line video would be helpful." --1043

"Screen layout is ok, but would be better with real headlines. I note that sometimes articles appear in multiple parts, the second without identification..." --1057

"No." --1065

"Ability to change foreground and background with ads? Would be nice." --1068

"At the current time graphics has such a high overhead in terms of transmission time that I do not think it should be used. It would result in the deterioration of CommInS service." --1072

"Perhaps a really high resolution screen would give a closer approximation to newspaper layout." --1076

"1) Please make it possible to change the background and foreground colors. Black and white on an EGA monitor is terrible. 2) I still miss the graphics and photos of printed publications." --1084

"Save source details for full story. For summaries maybe try smaller windows?" --1087

"If lines could be compressed to get more information on screen it would make stories more readable (e.g. 43 lines on a Hercules or EGA display)." --1088

"Important breaking stories would benefit from larger headline type to provoke attention." --1092

"Color for different priorities on articles? Don't mess with screen layout. Headline size would open Pandora's box of graphics interfaces - why not avoid if you can?" --1096

"Color is not worth the trouble. Graphics are much more important." --1100

"An APA display would provide biggest improvement. Unfortunately, it would probably not be feasible due to the high cost of the displays. There are alternatives, highlighting can be used for italics and colors can be used instead of different point sizes. The layout of the summary screens could be made more graphical (i.e. small windows, instead of lines) and the summaries could be ordered by the news services instead of being ordered chronologically." --1109

"No." --1112

"Though I don't have a color monitor to even take advantage of these features if they were incorporated, I would want the identifying information at the beginning of each article to be a different color than the text of the article. In addition, the border outside of the main window should be a different color than the filter lines." --1116

"While obviously complex - color would be a great addition as well as more graphics (e.g. the type the Wall Street Journal uses)." --1121

"I think that any such changes would require users to have greater graphics capability (ega +, and a big screen). The extreme case would be a sort of remote desktop publishing where the entire newspaper image could be sent and received. In the shorter term, headline size could be used, or some indicators of importance other than the usual flash-bulletin-urgent. However, since many people (like myself) still use text-oriented displays, the possibilities of color and headline point size are limited." --1126

"No, I think it's excellent." --1130

"1) I think transmitting graphics requires more than 7 bits per character and so I think it wastes system resources and restricts the total number of simultaneous users. 2) Headlines also cause editors and publishers to have mind bending power over the masses. 3) The masses have screens that display 1/8 of an open newspaper. With space so dear, why not use it to display more facts - as for finding things, let our fingers do the walking." --1134

"Since you are currently restricted by PC monitor parameters, there's not much I can imagine that would help the system. If you were designing the system from scratch, however, I would think it very important to accommodate headlines, various fonts, and simple graphics (charts, graphs) if pictures are not feasible." --1137

"None." --1138

"User-defined different colors for different categories? Eg. News flash=blinking, sports=green, Soviet=red, etc." --1141

"My current system uses a monochrome screen so color and layout are limited by that. Now if I had an EGA system, colors might be an option. In general, I think that newspapers are fine in black and white and the project CommInS is fine with current screen technology." --1150

"What I want is the greatest possible amount of raw data with the least possible pre-processing by anyone else." --1152

"Users could develop individual styles for picking formats and fonts for different news stories - an optionally formatting language - beyond ASCII." --1158

"Highlighting could be used smarter. Currently, software highlights only first occurrence of word(s) that caused 'hit', confusing the reader. It should either be done well or not at all, and before investigation of colors, etc. (Modem queries provide no hi-lite: this would be great!)" --1163

"It could be better, but I'm not sure how." --1165

"All very good ideas. I would implement as many as are practicable/feasible. Your recent question about large-screen monitors, if it facilitates a wider visual field, would improve chances of success." --1174

"Character size, color, and flashing character attributes can easily be misused, resulting in an annoying and hard-to-see display. There are plenty of examples of this in commer. software packages. I think it is important to come up with flexible, user-controllable way to format and highlight information on the screen. The current way in which the screens are formatted is not too bad, given the limitations on resolution. I'm not so sure that adding color would be all that useful (and I even have a color display)." --1178

"I don't miss the visual aspects of the newspaper but rather the informational part of headlines etc. The solution to this problem is not better graphics but a system for organizing the information so it can be reviewed by the user in some way that is similar to looking through a newspaper. To improve on looking through the hard copy 4th NYT I would like a list of all the headlines in the paper arranged in the same order as they appear in the paper. Then need some easy way to access interesting articles." --1181

"No." --1184

"Not really necessary. When accessing system, I want specific information NOW! More discrete filters in addition to 'general' already available is sorely needed. For some information, the time delay between receipt by newswire and availability on the Boston CommInS is critical." --1187

"I would discourage the use of color. Color monitors generally have poor text resolution. Since the CommInS service uses text almost exclusively, I think the benefits of color would be outweighed by the resultant eye strain. I think people would use the system less and less, even (or maybe especially) if they didn't realize that the resolution/eye strain was to blame for their feelings of irritability and tension while reading the news. (It's stressful enough by itself.)" --1188

"There are lots of things that could be done with the screen layout to make CommInS more pleasant and more useful. Unfortunately, I think that most or all of them depend on having a significantly larger screen to play with. I have a fair amount of experience with various types of windowing software, in both character and graphics modes, on the medium-resolution (720x348, 640x400 and 640x480) 12 inch monochrome and color screens that I use at the office and at home. The most powerful impression that I get from such software is a combination of great excitement at the obvious potential of such systems with great frustration with the hopeless inadequacy of 12 inch screens - even sharp ones - for such uses. The issue here is not windowing per se, but the consequences of carving up an already small piece of real estate into even smaller chunks. Of course, like many other hard-core computer addicts, I eagerly anticipate the day when I can add a 19 inch, high resolution monochrome or color monitor to one of my systems. But the cost is so high that it's likely to be a long wait for me, and even longer for more casual users who are less willing to make large investments in hardware." --1195

"So far, am very happy with the layout etc. As I use the system more (and we plan to), I will let you know if I can think of any improvements." --1201

"I'm afraid I can't think of anything useful, but again I just don't feel this is of priority importance. (I don't have a color screen either.)" --1206

"Could you make revisions to the software with options for those people with color monitors, larger screens - or generate printing that covers more than the average screen covers - much as desktop pub. programs you can create documents larger than your screen size." --1207

"No ideas." --1208

"The filter screen is awful. Should be idiot proof. Menu with all possibilities or fill in the blanks. The parentheses should disappear - make the code 'understructure' transparent. At least a menu of options for Category, Priority, Subject with blanks for terms." --1209

"No. It would presume editorial judgment." --1210

"Is there a way of digitally transmitting news photos to our PC's?" --1216

"Obviously capability to down load desktop publishing compatible files would be an asset, but might be prohibitive and pose copyright problems." --1217

"Color would be of immense benefit. Screen layout should use windows more extensively." --1219

"The software could take advantage of available hardware options in order to give half-tone images and color. Unless you go to page-sized mock ups using high-resolution electronic publishing methods, there is a limited value for formatting text with color, size, etc. attributes." --1220

"If you could select all stories on one subject and arrange them on a page in order of priority with large type headlines, you could create your own specialized newspaper - it would be great!" --1223

"No, I'm fairly satisfied. Color would be nice - as in word processing - but not really necessary." --1225

"A bigger headline size would definitely help. More use of windowing might also make the information more manuverable at the user end." --1227

"Apart from using machines with different architectures (e.g. MACS), headlines and layout per se are very limited. But, as I outline above, if I could see a code beside an article saying 'This is a big story and new' or 'medium big follow-up' that would help a lot. Color, where available, would be very helpful in such a scheme. If at all possible, non-text cues are best for describing priorities (color, headline size, placement), but within the PC architecture you may have to settle for codes (perhaps using the not-text ASCII characters) to get this out." --1228

"MMI is o.k. -- used to reading in black and white." --1229

"I don't think size is important, and the layout seems ok, and I don't have color. Intensity of words or a highlighter, or underlining might be useful." --1231

"Better use of bold for headlines, etc." --1232

"Not really." --1234

"1) Allow dummy filter lines which are simply blank, so users can cluster related lines into obvious blocks. I have inserted actual lines, XXX, YYY, ZZZ, WWW, -- as dummies for this separation. 2) Offer a 'key word in context' option like Lexis/Nexis does. 3) In the Summary Window, include some marking to identify which articles are regular articles and which are editors' summaries. 4) Find some way to avoid sending multiple copies (versions) of the same article." --1235

"Again, it depends on what transmission speed you are committed to. I don't know of a way to do it with current computers without using slow bit-mapped graphics." --1242

"Color filter at receiving end with ability to control color of headlines, background and article text color or the use of inverted video with gray scale control in monochrome would be a plus." --1243

"I don't think these are necessary. A higher resolution/larger screen would help when browsing." --1244

"Not for me." --1248

I think that the Monthly Questionnaires in the next few months should ask questions about these important issues not yet covered in the questions to date:

"1) What could be done to help you select more interesting articles? 2) What annoys you about the system?" --1011

"1) Regularity of usage and time profile by day. 2) Time spent on other media in the same month." --1019

"I'm afraid you're way ahead of me on ideas for questions! So far they've been challenging and provocative." --1024

"1) Duplicate articles and other program errors." --1025

"What other sources of information would you like to see provided by the system?" --1028

"Value and design of an 'intelligent assistant' filter. It might learn my preferences." --1038

"Suitability of retrieval functionality." --1041

"How can we filter out large numbers of duplicate articles?" --1057

"Would you like to automatically filter out all articles previously examined in the session?" --1068

"1) Do you feel that the information gained from these questionnaires is being used to improve the system? 2) What is being done with these questionnaires?" --1072

"1) From the modem connection - it would be an improvement to save the files/articles to disk for printing/reading later. 2) Any plans to expand from AP and NYT? 3) Does the weather effect reception - as it seems to for us?" --1084

"1) Would you use a higher band rate if the 2-way service supported it? 2) Would you purchase rights to copy/distribute articles captured if NYT offered a rate structure?" --1096

"Would background operation be useful?" --1109

"More on modem hookup." --1110

"1) I would be more interested in what BCIS is doing about a) other on-line information like other newspapers, periodicals, community information and b) commercialization of BCIS." --1112

"1) Demographics - who would want to use the CIS, what are their professions, where do they live, how many children, etc. 2) How the CIS fits in the media. In other words, how do users compare CIS to the newspaper, TV, magazines." --1116

"Questions about new features. I would like articles that have been read and are previously dated, to be auto-deleted." --1120

"1) What do they do with the information? 2) Does this compete with, or substitute for, alter information source?" --1121

"Convenience of use vs. newspapers/magazines." --1126

"User friendliness." --1127

"How do you like the name Boston CommInS - should we keep it?" --1130

"1) Use on less costly computers. 2) Longer search strings using modem. 3) Public domain enhancements like FAKEY, PD, SUPERKEY." --1134

"How do you avoid 'garbage' stories?" --1141

"Comments on software user interface and command key sequences - Are they intuitive? 2) Are they like other 'popular applications' like escape to back up a level, or return to execute, or lotus like, etc." --1171

"1) Should the summaries show which filter line was matched? 2) Should a simple means be provided in the programming to eliminate collection of advisories and digests? 3) Is radio reception significantly improved in 1987, compared with what it was prior to July 1986?" --1174

"How long does it take to rebuild after a system crash (power failure, etc.) and how often is a rebuild needed? (Why does it take so long??) 2) What specific new capabilities in the filter language would be most useful? 3) How much interest is there in applying some of the CommInS features to other information feeds? (notably, Usenet news feeds) 4) How often do you pick up duplicate (or multiple copies of the same news article in a single filter category? 5) What pet 'misfeature' or 'bug' annoys you the most?" --1178

"1) What should be included in summaries. -- I would like the 'subject' line included. This would help identify articles' major emphasis. 2) Questions about willingness to pay for specific services at prices which are realistic estimates of the cost of offering these services. 3) Should some AP material be available by modem or should some AP material be re-broadcast frequently. 4) Should there be some way to avoid capturing multiple versions of essentially identical AP stories." --1181

"1) Optional question - compare advantages/disadvantages of Boston CommInS to other real time or data base services you have experienced. 2) What new feature or software change would you like to see incorporated? 3) Comment on your interest in receiving data stream via telephone versus FM receiver. What monthly cost would you be willing to pay for phone line?" --1187

"1) Other media use habits i.e. newspapers, TV news, etc. and degree to which CommInS has replaced them. 2) Who uses the system? Incidence of multiple filters on same system?" --1192

"1) I have had difficulty getting entries from some of my filters. 2) I would like a way of getting pictures with my articles. 3) I would like to leave questions to be answered off a bbs by the CIS people." --1206

"1) What changes can be made to the manual to help in choosing items for the filter. 2) More questions about how successful your filter is." --1207

"1) What function keys would you like? 2) How else could you structure the filter?" --1209

"Nothing comes to mind that has not already been covered." --1217

"1) Would you use CommInS more it more late-breaking news was available? 2) Would CommInS benefit from an enhanced filing system to organize older news articles?" --1219

"1) Two-way applications (e.g. merchandising, mail, etc.). 2) Large databases (more sources, more history). 3) Background processing, leaving PC available for other things." --1220

"1) I'd like to see results of questionnaires and surveys done so far, plus report on selected answers to essay questions." --1223

"1) Perhaps combine some of your questions - 'put together a series of features (and proposed features) - and tell us what you would pay for such a service' (get the users to bargain). 2) Sorry pretty blank - you have written good questions so far." --1228

"Cost of commercial system." --1229

"1) How CommInS users put the information to use. 2) How to handle 'information glut'. 3) How to be selective in acquiring information on example topics." --1231

"What environment is the system in? (e.g.) work or home. 2) With more frequent access to the system would it be used more? 3) Do you have access to more than one system?" --1234

"1) WHAT'S IN PEOPLE'S FILTERS? How often changed? Classify by origin of interest: Family member, current work setting, former work setting, home town, etc. 2) In what way has CommInS affected the subjects they follow? 3) Ratings of the value of information captured via CommInS. E.g., in a month's time, how many items rate 10 (on a 1-10 scale)? How many 9's, 8's, etc." --1235

"1) If CommInS system becomes available to public will current users be willing to recommend the system to their friends? 2) From what age are children of user's interested in the system? 3) Has the system been able to pro·ide information that the user wouldn't have found otherwise?" --1243

"1) Why do you use CommInS? 2) What do you do with the information received?" --1244

"This is a very interesting question. May I think on it?" --1248

"How likely is it that you would use Boston CommInS if you were not using your PC daily already?" --1076

July 1987

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
77	0.00	30.00	180.00	600.00	1440.00	411.95
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
76	0.00	3.00	10.00	20.00	120.00	15.49
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
73	0.00	3.00	7.50	10.00	120.00	12.82
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
73	0.00	5.00	8.00	15.00	140.00	13.97
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
69	0.00	0.00	0.00	5.00	120.00	3.97
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
77	0.00	20.00	60.00	100.00	700.00	94.92
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
77	0.00	6.00	20.00	50.00	300.00	44.51
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
76	0.00	2.00	10.00	20.00	100.00	16.44
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
76	0.00	2.00	5.00	10.00	50.00	8.57
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
76	0.00	0.00	0.00	2.00	20.00	1.54
55 I find that the information available is of: little interest--great interest						
80	2.00	6.00	7.00	9.00	10.00	7.34
70 I find the system has: no value to me--some--great value to me						
80	1.00	6.00	7.00	9.00	10.00	7.19
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.						
81	0.00	10.00	20.00	45.00	360.00	37.44

93 My interest in the system is: decreasing--unchanged--increasing

81	0.00	5.00	5.00	7.00	10.00	5.77

130 Of this time, I use the two-way features with my modem ___ minutes/day

82	0.00	0.00	0.00	1.00	120.00	3.48

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

56	0.00	0.00	0.00	2.00	80.00	3.38

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

56	0.00	0.00	0.00	1.00	65.00	2.24

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

57	0.00	0.00	0.00	1.00	35.00	1.19

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

56	0.00	0.00	0.00	0.00	20.00	.53

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

72	0.00	0.00	0.00	2.00	120.00	5.15

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

57	0.00	0.00	0.00	2.00	30.00	2.58

181 I use the 2-way system __ sessions/week.

73	0.00	0.00	0.00	1.00	14.00	.72

182 Each 2-way session lasts about __ minutes.

44	0.00	0.00	1.25	10.00	120.00	10.32

193 I use the system in the the City/Town of: This location is my: Home[0] Office[1]

78	0.00	0.00	0.00	.50	1.00	.30

194 During a typical day's use, I receive __ percent unframed packets (and the rest as framed packets).

64	0.00	.75	1.50	10.00	99.90	10.17

195 With the CommInS, I use the "beep on arrival" feature: never[0]--sometimes[5]--often[10]

80	0.00	0.00	0.00	4.00	10.00	2.21

196 During the experiment, I have received at least one telephone call concerning missing Questionnaires: no[0] yes[1]

80	0.00	0.00	0.00	0.00	1.00	.23

197 I find the calls re missing Questionnaires: umpleasant[0]--OK[5]--pleasant[10]

31	1.00	5.00	5.00	7.00	10.00	5.90

198 During the experiment, I have called the HOTLINE at least once: no[0] yes[1]

79	0.00	0.00	1.00	1.00	5.00	.70

199 I find calls made to the HOTLINE: unresponsive[0]--OK[5]--responsive[10]

56	0.00	5.00	5.00	8.00	10.00	5.95

200 I export data from CommInS to a spreadsheet or statistical program: never[0]--sometimes[5]--often[10]

81	0.00	0.00	0.00	0.00	6.00	.23

201 I think that a person with no prior computer experience will find the CommInS system: hard to use[0]--easy to use[10]

81	0.00	3.00	5.00	7.00	10.00	5.26

202 I think that this fraction of the general population will own a personal computer in 1990 and will want to use a system like CommInS: 0 percent[0]--100 percent[10]

77	0.00	1.50	3.00	5.00	9.00	3.44

203 I would like CommInS to run under the MS-Windows operating system: no[0]--maybe[5]--yes[10]

77	0.00	5.00	6.00	9.00	10.00	6.42

204 I would like a "gateway" back to DOS from within the program: no[0]--maybe[5]--yes[10]

81	0.00	5.00	9.00	10.00	10.00	7.56

205 I would like to be able to "lock" articles to prevent their deletion: no[0]--maybe[5]--yes[10]

80	0.00	6.00	10.00	10.00	10.00	7.60

206 I would like to be able to re-assign the key "bindings" for personal preference: no[0]--maybe[5]--yes[10]

74	0.00	4.00	6.00	9.00	10.00	6.23

207 I would like to be able to mark individual stories and have them deleted as a group at the end of a session: no[0]--maybe[5]--yes[10]

78	0.00	6.00	9.00	10.00	10.00	7.85

208 I would like the CommInS to broadcast schedules for movies and concerts: no[0]--maybe[5]--yes[10]

81	0.00	7.00	9.00	10.00	10.00	7.94

209 I would like the CommInS to broadcast information from town newspapers, e.g., the Cambridge Chronicle: no[0]--maybe[5]--yes[10]

81	0.00	2.00	6.00	9.00	10.00	5.88

210 I may purchase or obtain the use of a new computer in the next 12 months: no[0]--maybe[5]--yes[10]

79	0.00	1.00	5.00	9.00	10.00	5.06

211 If so, I will look for hardware and software that allows multi-tasking: no[0]--maybe[5]--yes[10]

66	0.00	6.00	8.00	10.00	10.00	7.52

I think these are the most important town newspapers to include:

Globe
Tab
--1005

Middlesex News
--1011

Hard to pinpoint given the many towns.
Cambridge Chronicle, TAB, Phoenix.
--1013

No comment on town newspapers.
How about the Globe and C.S Monitor?
--1024

The Tab
--1125

Boston Globe

Arlington Advocate
--1032

Boston Globe
--1138

Boston Globe
Herald
--1051

Arlington Advocate
--1052

Wall Street Journal
Boston Globe
--1057

WSJ
--1068

Brookline
Cambridge
--1077

Boxford Chronicle (obviously not a big hit)
Tritown Transcript
--1084

Chronicle
Phoenix
Arlington paper?
--1087

Cambridge Chronicle
--1096

Boston Phoenix
--1100

Tab
Phoenix
--1112

None
--1116

Boston Globe
Tab
Phoenix
--1120

Cambridge
Brookline
--1125

Jamaica Plain Citizen
--1127

Cambridge Chronicle
--1130

Patriot Ledger
South End News
--1134

Boston Globe
Medford Mercury
--1138

Brookline Tab

Boston Globe
--1150

Lexington Minuteman
--1158

Boston Globe
Cambridge Chronicle
Tab
--1165

Boston Globe
Christian Science Monitor
--1171

Boston Phoenix, Cambridge Chronicle, Newton Graphic, Harvard Gazette,
Tech Talk and other major campus activity listings papers.
--1174

Cambridge Chronicle
--1175

Quincy Ledger
Wall Street Journal
--1181

Sudbury Town Crier
Globe
--1184

Boston Globe
Cambridge Tab
--1178

Boston Computer Society publications
events
--1187

Somerville
Cambridge
Boston
--1192

Newton Transcript
--1205

Lincoln Journal
--1206

Lowell Sun, Cambridge Chronicle, Boston Phoenix, Middlesex News,
Waltham paper.
--1207

Cambridge
Somerville Journal
--1208

Globe
--1209

Phoenix
--1214

N.Y. Times
Boston Globe
L.A. Times
--1219

Lexington Minuteman!
--1220

Boston Globe
--1221

Never read any.
--1228

Boston Globe
Herald
--1229

Somerville Journal
Arlington Advocate
--1234

Lawrence Eagle-Tribune
--1235

I am not so much in local town news interested and therefore I don't read town newspapers.
--1243

Boston Phoenix
--1244

?
--1248

Tab
Cambridge Chronicle
--1253

Do you see any new or emerging technologies coming in the next few years that will increase or decrease the probability of commercial success for a CommInS-like system? Please mention the technology and your reasons for thinking that it will have a positive or negative effect on the desirability of the CommInS.

(We are especially interested in your views on (i) cable television, (ii) low-cost portable televisions, (iii) widespread computer networks, (iv) compact disks (CDs) containing large databases, (v) multi-tasking operating systems on more powerful micro-computers, and (vi) digital transmission-but feel free to let your imagination roam.)

"(iv) May have some negative impact, but would not be as current. (v) Multi-tasking will definitely help because the computer wouldn't be tied up." --1005

"Low Cost CDs may allow user to create personal database of articles of interest by saving them to CD instead of deleting these at end of session. -- if CD read and write technology becomes commercially available." --1009

"I feel more powerful personal computers will add to the system. Not only will they allow the PC to process incoming articles at a faster rate, they will allow the user to utilize the computer while receiving articles. These will allow more articles to be scanned, and hopefully more articles from other publications transmitted." --1011

"I still feel that the main strength and weaknesses of CIS are inherent in the medium itself. I think that some service like CIS will have commercial potential if it can be made inexpensive, but I don't think the typical user cares whether there is a cable hookup or not. Same applies to digital networks. CD's can't achieve the timeliness." --1013

"I'd expect that cable T.V. with more extensive news offerings would go against CommInS. Same for low cost TVs (same reason). Widespread computer networks might stimulate more interest in computerized news (Compuserve, etc.) but would compete with you also (probably a draw for CommInS). CD's - if the technology develops - would allow users to

store many articles for later use (but difficulty is need for expensive recording system - would you like to consider selling CD's to users as part of your service?) Customers could by CDs you've prepared in one of say if topic areas - for specified time period - interesting idea. Competes with commercially available databases, however, more powerful micros would help you immensely." --1024

"Developments most likely to have a negative effect on CommInS: 1) cheap, readily available CD/on-line data base combinations that could be used to search news files as CommInS is used (but CommInS could be priced competitively; 2) Cable T.V./Computer Connection for the ticker-tape and news services; 3) Widespread linking to mainframes if these are used to store news articles. Developments most likely to have a positive effect on CommInS: 1) Cheap, readily available mass storage devices (CDs, large hard disks, stable RAM disks, etc.); 2) Multi-tasking operating systems with CommInS running in background; 3) More computer networks (LANs), if file server is used for storage and multiple copies of CommInS software used to tailor filter to individuals." --1025

"Both satellite-based and cable-based technologies will grow dramatically in the next 10 years. Automated information services will become very 'hot'. CommInS serves the 'one to many' communications problem very well. It is efficient, flexible, timely, and cheap. Other systems, such as the telephone network in the current mode, may serve as the return link in the information dialogue. CommInS should evolve as the user environment which can control/utilize different communications channels such as cable link-ups, RF transmission, satellite communications, and the telephone networks. Either CommInS will be the commercial success or something else will come along that performs similar functions and become the commercial success that CommInS could have been." --1032

"CD ROM will have a big effect. For my business use, I don't need daily news, but I want complete news. CD ROM will be appropriate. A cheap hard disk would be partial substitute. Multi-tasking not critical. I now leave my system on overnight; then read news sometime the next day. Why is digital transmission relevant? Data arrives to me digitally now. Biggest impact would be larger displays, with color and especially headlines/pictures. Other key technology will be intelligent, adaptive filters, that can learn what each member of my family wants to read, by observing what we do read. Also, higher bandwidth system (e.g. CD ROM, cable) to get more periodicals." --1038

"Increased use of multi-tasking will enable users to allow CommInS while using their computer for other tasks. Developments in mass-storage technology (CDs and hard drives) will allow for greater flexibility and faster access to information. My particular situation (speech synthesis requirements) may improve, due to technology. However, I'm unsure as to whether multi-tasking can be set up to take this into account. Another development might be 'X-pert Systems' and searching for news articles using a more 'natural' environment. This would make CommInS more attractive to new users." --1051

"I feel strongly that I am not alone in thinking that a multi-tasking OS will make Boston CommInS -- operating on a background mode -- more desirable. I think large databases on CDs will not impact a program like Boston CommInS adversely until the price of the CD database is quite low." --1052

"Cable T.V. is not living up to its initial promise. With its bandwidth, it could provide a news service like CommInS, perhaps better. However, it ain't gonna happen any time soon, because we have built a major, 1-way cable system. As media for a CommInS type system, either cable T.V. or broadcast T.V. could work, perhaps better than FM radio because of more bandwidth. Better computers, running this thing in background will make it more used and useful. CDs won't have much effect: this is a news service and CDs come by mail." --1057

"Cheaper computers, multi-tasking operating systems, better CRTs perhaps will have a positive effect. I don't see any effect of CDs since news is a real time event, or at least time related. Cable television, high speed networks would allow hasty transfer of articles. High resolution T.V. will allow color, animated newspapers. I think the most important positive effect would be if it could be priced cheap enough so that one doesn't have to think much about purchasing it." --1065

"(v) Key for background information!" --1068

"I don't see how cable television or low cost portable television have any relevance to CommInS-like systems. CommInS could certainly be part of a widespread computer network. As I've said before I think the dial up part of the system is the best part. CDs would be a good supplement to the system too. Storing large numbers of previous stories that may still be

of interest. A multi-tasking operating system will increase the acceptability of CommInS to present computer users. Doesn't CommInS use digital transmission?" --1072

"Multi-tasking might increase the use of a CommInS-like system for some users, but I personally would not use it." --1077

"Cable is an obvious competitor - especially in areas such as this where reception could be/is spotty. But this limits portability. Therefore, the obvious alternative is RTTY. There does seem to be an increasing interest in the shortwave/computer link. Initially for interactive communication. But the portability would be the big seller. Picture white watering the Allagash and reading the Times while your socks dry out." --1084

"I'm pretty ignorant about emerging technologies. Of the above, the CD databases interest me most, but I see them as references and manuals -- nothing to compete with NEWS." --1087

"I would expect that Cable T.V. will, to a small extent, provide increased news-gathering power in the home but the two-way power of the modem feature is not likely to be available soon in most locations." --1088

"CD ROM will make people put together large consumer-oriented databases -- potential for accessing/broadcasting different channels (a cable T.V.?) is not unrealistic. 2) Multi-tasking computers, DOS 3.3 with four serial ports, more power, all make running CommInS as background task more viable. 3) PC-Pursuit might allow linking of call-up databases?" --1096

"(i) and (ii)): little or no effect. (iii) and (iv): may hurt CommInS, but the filter idea/software, if expanded, could make other systems much better. CommInS still has an edge, though: current information and news as it is written. (v) A great help -- picture a Macintosh II running 4.3 BSD with X windows running at 10 MIPS. (One window might be CommInS running, if you like.) (vi) You may find a better way (faster, more reliable) to transmit the news packets." --1098

"No Comment" --1100

"New and emerging technologies will definitely have an impact on CommInS-like systems. (i) Cable television has the potential to decrease the commercial feasibility of a CommInS-like system in metropolitan areas. The cable that is used for cable television can carry much more than just television programs. The cable can be used for bi-directional high speed data transmission; this has certain advantages over CommInS-like systems. THe higher data transmission speed allows more articles to be transmitted in a shorter time. The bi-directional cable allows more interaction (like with the dial-in feature) at a higher speed. The CommInS-like system is superior, however, in fringe areas (e.g. suburbs), where it is too expensive to run cable. (ii) Low-cost portable televisions are just a step away from portable terminals. Portable terminals are perfect in an environment with a CommInS-like service, especially since many of today's portable TVs incorporate radio tuners. Instead of bringing the paper on a trip, one could bring the portable TV/Terminal. (iii) Widespread computer networks (e.g. a local telephone company offering LAN service and phone service) represent another possible trade-off. The network will provide superior data transfer rates, but will probably be much more expensive. Currently, computer networks (e.g. TELNET charge users by the minute for connections to mainframes, while there is no connection charge for CommInS. This price difference could be a deciding factor. (i.v.) CD databases, in my mind, will have no effect on the success of a CommInS-like system. The two are targeted for different audiences. CD databases are usually used for very large static bodies of information. The CommInS system provides a very dynamic body of information, which may be only a few minutes old. (v) Multi-tasking operating systems and more powerful microcomputers will soon be available. They represent an area which may have the biggest effect on the feasibility of a CommInS-like system. A powerful multi-tasking system would allow a user to run the CommInS system in the background, while working on other tasks. This increases the usability of the system and makes it a more attractive investment. A business executive, for example, could work on monthly reports while receiving business news and stock quotes in the background." --1106

"The things which make the BCIS and similar systems unique are: 1) You look at information that you want to look at when you want. It's all on your disk. You don't have to wait for a newspaper (as on radio and T.V.) to find out what's going on. 2) The information is continually updated. You don't have to wait for a newspaper or CD to get information. 3) The required equipment is minimal - a computer and a radio with some software. This seems optimal. I can't see anything coming along that would be nicer than BCIS, with the possible exception of dedicated micro systems - but multi-tasking will take care of that." --1112

"I think that a combination of videotext and a powerful micro-computer will most likely increase the desirability of the CommInS. When videotext matures enough and becomes inexpensive enough for the home, then CIS might be able to use cable television to transmit pictures and information. Cable television has such a greater bandwidth than FM radio that it will vastly increase the information transmission capability. A powerful micro-computer with cheap mass storage in the gigabytes could manage the presentation of all the information received on the cable television channel. I imagine some super-charged version of the current program would run on that computer. A CIS user would be able to see color pictures with stories, charts of the stock market, and other video information not currently possible on the CIS." --1116

"IBM 'PS's' should enable continuous operation of CommInS with multi-tasking. This should have a positive effect. The rapidly growing interest in user bulletin boards and interactive systems such as Boston CitiNet will compete for certain types of recreational information, however, if CommInS can assure automatic collection of information rather than modem interaction and on-line user needs, your product will prevail. It's easy to read information already collected." --1120

"It seems that any technology such as cable which can handle images as well as text may be in a significant competitive position but cost will be a factor [unknown word] in the choices made." --1121

"I think the most important technology is that of centralized large databases like Compuserve, which already provides the AP news wire service and has biblio search capabilities. If (despite the FCC) these on-line services become cheaper, I think the radio portion of BCIS will have real competition. I don't think TV will have much of an impact -- TV news fulfills other (less detailed) requirements. CD's with databases also seem unlikely to compete -- who would spend a large amount of money for a NYT database that might be only infrequently used. Small, cheap(er), portable computers may be more important to the success of BCIS. Newspapers are convenient -- you can read them almost anywhere. If BCIS can duplicate this convenience I think it will become much more viable. Combined with background data reception you might have a winner. As it is, the portability of the paper is a great advantage over BCIS." --1126

"I am just not up on the emerging technology. Friends to whom I have mentioned or shown the system are excited about gaining access to something like it. So long as it (a) offers access to lots of current information (e.g. real estate listings) and (b) is simple to use, they'd be interested." --1127

"Don't have any strong opinions worked out and since I'm late already -- I'll pass on this one." --1130

"The big issues will be markets dependent not technology dependent. What job are you using it for? News, database, etc. In general, a technology is neither good nor bad, it is simply 'appropriate' or 'inappropriate' for a given task at a given time (better, cheaper, faster, easier). (i) Wide bandwidth channel, dependence on cable operator(s) probably too expensive for cable 'service charge' but could run on FM subcarrier. (ii) Forget it. No comparison, not machine readable. Print newspaper would be more of a threat than TV. (iii) Moderate bandwidth, high network cost, dependence on multiple network operators could enhance 2-way capability, and access to distributed databases. (iv) A significant factor for databases only, not immediate enough for news. (v) Won't affect the distribution of data, but possibly the operating environment for the CommInS software, and post processing. (vi) What is it? Digital in what way?" --1133

"Most cars will have computers. I have designed such a system and it will soon be 2-way via cellular. Most people who drive to work get news enroute. Most design engineers can hook up a voice synthesizer to a receiver and a speaker. Messages need not be sent in 8 bit character string form. Voice synthesis bits could be sent but stripped off when filtered out to display device other than the synthesizer/speaker duo. DAT will blow vehicle CD away. A 'news track' could be added to stereo DAT without reducing fidelity in a vehicle environment and without changing head design. The device could be very useful for emergency notices and E-Mail." --1134

"1) High-definition monitors will make it much more pleasant to obtain one's news/newspaper from a computer monitor. 2) Low-cost, high-definition thermal printers -- with a printer and newspaper layout software and a CommInS-like system, I can receive a newspaper over night and print out a customized paper (with color photos!) before I wake up." --1137

"Ch. 2 Computer Chronicles on 7/11 or 7/18 had the vendors of a database service for stocks and bonds and I believe a news article service showing their product. (I have very little information on this broadcast due to not seeing it in its entirety). This type of service may affect CommInS's future." --1138

"The chance of commercial success for CommInS will be increased by appealing to people with money. Typically these people will be willing to part with their money if the information helps them make money. The key to doing this is to have very specific and/or timely information. If the information is soon available nationwide (e.g. NYT stories), it must be very timely. [This capability is only of use if the CommInS feeds information immediately rather than on a daily basis as most users probably access the system now.] If the information is unique, then timeliness is not a factor. Large databases on CD or via cable TV can provide unique information through the intelligent use of data searches. CommInS has fledgling capabilities here but the NYT database doesn't have enough detailed information to be of much commercial use yet. More powerful machines might make the system easier to use but don't affect the underlying commercial attraction." --1150

"More sophisticated AI filters which 'learn' what I want from the news wires. Cost decline for hardware and network costs represent an important technological component. CommInS could be delivered by many means. SCA radio is ideal." --1158

"Sorry for my poor imagination, but I really can't think of anything on this subject -- but I will give you an idea on something unrelated -- why not have a filter line that would catch, say, all the full articles referred to in the NYT news summary, or all the articles from the front page of it." --1160

"I view CDs as a threat especially for the modem-based service. It is much more convenient to have the NYT database updated monthly on a CD. Network multi-tasking will encourage FM product use. The latter will make it easier to gather articles. THe former will make it easier to share items." --1165

"As a positive development, higher baud rates (presently to 19.2 KB) usable on FM broadcast sub-carriers can make for a 'turbo', souped-up CommInS. DBS (direct broadcast satellite) technology holds out the possibility of a national delivery system. This could be a mixed blessing, as it might compromise the local or regional ('community') character of the present CommInS, which is so much a part of its value. On the other hand, direct-to-home (or office) information delivery over a far vaster coverage area would be feasible, especially appropriate for 'national' news services such as NY Times." --1174

"Predefined databases on CDs will not adversely affect the demand for CIS with its emphasis on topicality. Widespread computer networks will increase accessibility to systems like CIS and consequently increase the demand. Multi-tasking operating systems will serve to increase the demand for systems like CIS, since they will provide a method of operating CIS that does not demand exclusive use." --1175

"The advent of CD-based databases makes mere on-line data retrieved via dialup modems less useful for relatively static information. But availability of news and updates is still a vital need that broadcast systems (such as CommInS) and dialup systems can fill. Then will be the possibility of using fixed slow-update media like CD in conjunction with over-the-air or network-supplied information. The amount of computer power available to the desktop user at low cost will continue to increase. This will make digital transmission of images and graphics much more feasible. More importantly, the increased computer power can be used to enhance the user interface and to integrate news/information gathering with other functions, such as word processing, spread sheets, and home control systems. (The ongoing development of the "Smart Home" project has the potential to transform the home as much as the arrival of electricity did at the beginning of this century.) The increased amount of computer power available on personal computers will allow much more sophisticated semi-automatic 'adoptive filtering' to be used to cope with the flood of information that will be delivered via dialup networks, cable, broadcast radio, and satellite. Provided that the filtering technology develops vigorously, the prospects for a system like CommInS are good. The needs, the raw information feeds, the processing/storage capabilities, and the software technology are all developing in favorable directions." --1178

"I am not competent to comment on specific technologies. I really don't care what technologies will be used. I will be looking for the easiest, least costly way to collect the information I want. I would need specific information on the ease of use, costs, information available via the various technologies to guess which ones would have an impact on CommInS." --1181

"Our system is still not operating well and we have difficulty getting files. Please call us for assistance." --1185

"1) Interactive video probably will increase the commercial success of media, products and services which use an

interactive type system. A home system using the telephone line will supply the following capabilities: traditional voice, data, cable programming dial up video, home video at multiple locations, home alarm system, home environment system -- ALL at the same time. Multiple voice and data. Current videotex systems will be rapidly expanded. 2) A word to describe a converging of different technologies to form a composite has not been coined yet. It is definitely synergistic. I envision continuous data streams over above system. Windows will allow multi-tasking." --1187

"Cable TV, portable TVs, etc. will all be broadcasting TV news. Don't worry about them. People who are interested in the system won't in general be interested in that kind of information. Networks will make cooperation with news services more difficult. They will have no guarantee of security and may not be willing to participate. CDs and multi-tasking will make the system more attractive." --1188

"The most likely challenge to a CommInS-type system would be, in my view, the availability of interactive news. Such a system would be delivered directly to the home or business via a local area network, by the telephone or cable television company, or perhaps via VSAT earth stations. This system would allow/provide video-news to users on a menu-driven system which would sort stories in broad categories, and then through branching end up in a text mode for those stories which viewers wished further detail. This, I think, combines the best of both worlds -- that is, the ability to define and manipulate the news stories you wish to receive, and the gross sorting that I think is lacking in the CommInS system to date.

For those using CommInS as an information database (i.e. those using the 2-way features more than the 1-way feature), CD-ROM will offer keen competition. The cost of replacing a CD disk on a monthly or weekly basis will continue to fall, while the cost of providing on-line access will not.

Multi-tasking systems will enhance the probability of success for a CommInS system, as the computer will not have to be tied up while it is used for news collection.

Finally, there may be something of an interaction effect with cable television, etc. [that] continues to increase their appetite for such information. This would have a positive affect on a Boston CommInS type system." --1192

"(i) I don't have cable T.V. myself, so I cannot comment from personal experience. However, I don't think the primary attraction of cable for most people is enhanced news service. I don't think it's really a direct competitor of CommInS. (ii) Irrelevant. (iii) For the general population, as opposed to people in their capacities as business employees, computer networks will be irrelevant for quite a few years to come. (iv) I think that CD's are likely to serve two markets, neither of which overlaps very much with that for CommInS - 1) a market for relatively inexpensive, relatively permanent reference materials (e.g., Microsoft Bookshelf, if it were somewhat cheaper). 2) a market for specialized information sufficiently important to justify high prices for frequent update CD's (e.g., potentially some of Lotus's ventures in this area). (v) CommInS under a true multi-tasking OS (e.g., OS/Z) would be much more convenient to use and would be a significant marketing advantage. (vi) I'm not sure what you mean by this. Digital transmission per se has no special significance. Improvements in data transmission rate and data quality would, of course, be useful." --1195

"It seems that most of the emerging technologies would have a negative impact on the CommInS system and others like it because they make it easier for people to keep in touch with world news via traditional methods -- portable TVs, for example. However, with the increasing dependence on computers in today's world, more people seem to have one or more computer than TVs or radios and many seem to prefer to use their computers than their more traditional methods of communication etc. For instance, many would prefer to send e-mail than use a telephone. By the same token, these same people would probably prefer to use a system like the CommInS system than read a newspaper or watch TV -- regardless of how easy or convenient the TV or newspaper might be. Also, I can imagine no emerging technology that can compete with the versatility of the CommInS -- The ability to scan for articles and be alerted to them, etc." --1201

"Cable network has specific interest stations that compete for my time now. I watch CNN Financial News Network. If this could be even more specific -- such as getting stock reports at the consumer's request -- I would prefer the picture and a human voice giving the information." --1205

"Actually it seems to me that even the more powerful [laptops?] will make a difference in that much of what I do with the CIS program falls under the title of recreation, entertainment and it is not demanding. So I like to fool around with it in

front of T.V. (also not demanding). With the laptop, I can easily set it up at my chair. I really wish you'd get stronger (or multi) transmission so I could use it when away from home (summer home near Williamstown, MA; other residence in Rochester, NY)." --1206

"I can only see the possibility of something like compact disks and the databases being a positive thing for the CommInS because if there is news and information available on CD ROM it needs to be current and supposing databases of newspapers were available on CD -- they would be updated annually, quarterly and monthly at the most -- the great thing about the CommInS system is its minute to minute currency -- which could be used in conjunction with CD ROM for currency. Multi-tasking software also seems positive because all computers could then be receivers of news while the user is performing daily tasks, writing, on-line searching, compiling statistics, writing programs whatever. The other technologies are out of my realm and I will refrain from commenting on." --1207

"CDs will not displace CommInS, since they cannot match its 'up-to-the-minute' responsiveness. Multi-tasking makes the system more attractive since you can continue to receive current stories 'in the background', but its going to take a few years (> or = to 37) before there is much of an installed base of such machines. I believe Pilot projects in disseminating computer information via cable TV system have been tried and failed already. The 'Nabu Network' in Ottawa, Canada around 1983 was one such attempt as I recall. However, part of the problem may have been lack of software and installed user base." --1208

"Multi-tasking -- Run in background would be very helpful. Desktop Publishing -- Re-issue of text -- could disinterest information suppliers. Cable TV -- EMPTY-V -- No impact. CD-ROM -- should supplement CommInS. WANS -- increase desirability of CommInS. Due to distribution to colleagues on the WAN. Add dialog daily updates to CommInS and you'll get a HUGE market!" --1209

"I believe that CDs are the wave of the future, certainly for data base information retrieval." --1210

"(i) Negative - more news will be available that requires no user participation. (ii) None - portable TVs are for the beach. (iii) Negative - a news service may be included as part of the network service. It would not require an FM broadcast, be faster, and be error free. (iv) Positive - would allow the user to store large numbers of stories for retrieval. The impact is greater as CD prices drop. (v) Positive - multi tasking would mean that my computer would not be tied up receiving data over FM. I feel this is important because I can get more out of my computer. (vi) Don't know." --1214

"I don't think that the other medium you mention above will affect the population of users who would want to use CommInS, if CommInS evolves to provide: 1) Up-to-date (up to the second) information source, including major news, stocks and bonds broadcasts. 2) Simple, windowing interface (vis a vis MS Windows). 3) Ability to easily filter news material. 4) Ability to run as a toggle beneath a 386 OS such as OS/2, PC MOS 386, or various UNIX versions for the 386. Desqview for 286, 86 type computers. The ability of CommInS for user programming will distinguish it from all other news sources. The programming interface MUST however be simple and intuitive. I see this product as currently heading toward the right idea but its usefulness is limited by current software interface." --1219

"1) Two-way cable -- negative effect: cheaper + video. 2) Computer bits -- negative effect: duplication of information. 3) Compact disks -- positive effect: little competition. 4) Multi-tasking PCs -- positive effect: can run in background. 5) Satellite direct -- negative effect: larger area coverage." --1220

"My only comment this month is that I would like to 'see' pictures or photos on the system." --1221

"(ii) Hook up CommInS to a small TV to find shows on a given subject and replay them -- great idea!" --1223

"I am not sufficiently involved in computer/network technology to offer an opinion. I have said before that I would like access to data bases other than old newspaper stories. I know that CDs offer large-scale storage, but I keep reading about an encyclopedia as about all that exists. I think a more powerful multi-tasking computer would be helpful; using Double-Dos -- even with an Univation turbo charger in my XT -- significantly slows down my word processor and spreadsheet programs. Expanding on the comment I made about the level of sophistication required to set up the filter (p.2) I would urge a filter line which affects all other lines. For example, I would use it to filter out all advisories and all category: sports as well as to limit stories to those with today's date. Right now, I find it frustrating to stay within the filter

line length, having to accept many unwanted stories because of the lack of a global filter line. Another useful feature would be an un-delete capability. Just the last story deleted would be sufficient." --1225

"I sincerely doubt that conventional cable television systems pose a great threat to the success of the CommInS system -- however, there is talk about initiating two-way cable television systems in the near future. Such a system would have a keyboard in every home which would allow interaction with the central computer. This would then open up a wide range of opportunities such as a very effective shop-at-home systems which would allow the buyer to call up on the screen any product through the use of menus, and then place an order. Such a system would also lend itself very well to a news retrieval system -- complete with graphics and color. I think the key is to watch the next five years very carefully to see whether people become more comfortable with their home computer or TV as a means of interacting with the outside would." --1227

"I am the wrong guy to ask about future technologies, but I'll give it a shot. Note - I find that CommInS is better for getting news on a specific topic than for the general question of 'what's hot in the world?' Further, I think that it will be most marketable to serious news buffs who like to follow stories in detail or people with very specific interests (e.g. sports nuts). Cable, low-cost TVs, and CDs with lots of information don't address the problems of either general news buff or the specific one. These technologies don't offer the critical combination of in-depth information on demand (cable and TV and timeliness (CDs) that makes CommInS successful. The only real competition here would be if cable were the transmitting medium for news to a CommInS type system - but that's no big deal. Multi-tasking is a must, at least if you don't have a hard disk and modem. Still, I think it will be pretty useful even with those hardware features. I have had my computer held hostage by CommInS and my desire for news -- not a good feeling. I doubt that home users will tie into computer networks for quite sometime. On the other hand, the business users will tie in if they aren't already. I think that business will be a big marketplace for you -- people will use the system as a personalized, cheap, clipping service. Along that line, people might want to sign up for a variety of news inputs from around the country or world. It might make it more alluring if users could get major (or minor 'papers' from other areas -- more like a clipping service. On digital, and other technologies, I have nothing to add. Sorry." --1228

"Technology may not be the main factor or have any influence. A case: my wife reads the newspaper 1) bed 2)bathroom 3)kitchen table 4)bedroom 5)car -- I would have to supply access at all these locations before she would ever think of changing her news format. (i) cable television -- I find that I watch CNN more than I use CIS. However, if specific details are wanted I use CIS. How about a combination CIS as a subcarrier on a cable channel? (ii) Portables are not that great. (iii) Too expensive for home use. (iv) Not for home. (v) Good. (vi) Technology can be better than the user needs -- I will spend about the same time on news no matter what the technology. Faster and more will not increase my news allocation time." --1229

"What about graphics with the more powerful computers -- it would be nice to get pictures. This would probably necessitate the use of cable television -- I think that this is where the future lies. Also, it would be nice to have access to the system through the LAW that's being installed at MIT. This should enable faster dissemination of information thus allowing for more efficient multitasking." --1234

"(i) Cable TV and (ii) low-cost portable TVs -- Frankly, I don't see much happening. We already have both of these, and look at their track record. What would you do to make them change? (iii) Widespread networks and (vi) Digital transmission -- The biggest gain I see would be the addition of graphics, made possible by the higher bandwidths. (iv) Powerful, multi-tasking and (v) workstations -- This will have real impact. Think of it. Everyone with the power of a Sun or Apollo!! Memory and speed would no longer be a barrier. The system could run as a background job. Graphics interfaces would solve many of your complexities that limit CommInS to computer - oriented people. Onward...Sun's for the masses! Seriously, your greatest limitation -- by far -- is ease of use for non-technical people. Think how many people have trouble with the controls on a microwave oven, much less a computer. None of those other technologies (i, ii, iii, vi) can help. More powerful machines can. For example, you could build in a small 'expert system' to step new users through the creation of their directory." --1235

"Multi-tasking and large memory sizes -- as these become [unknown word] on home machines, use will increase without them, you need to limit yourself to only one thie. CD databases will be nice but not as current as FM transmission. Networks could take away from this, but I wouldn't think they could compete cost wise. How about cheap paper? If this is going to replace a newspaper, that might be read several places other than home, then print on arrival to generate a

portable hard copy would be required. But who wants to waste all that paper, day after day, unless it was of newspaper quality anyway?" --1241

"The success of the CommInS depends in my opinion not so much from new technologies but from the educational level of the population and from the amount that will be invested in advertisement. As the majority of the population pays great attention to television it is possible that specific channels on cable television for instance that would provide similar news as the CommInS does could draw much more customers than the CommInS because of the additional picture possibilities. I am also almost sure that if the CommInS should become a success it wouldn't be the only such system for a long time because some other widespread computer networks would certainly start similar projects." --1243

"Very high resolution screens make browsing and reading faster and easier. Cable TV could deliver data -- like usenet stargate on WTBS' vertical interval. Unless price is kept low it won't be extremely successful. Computer networks are already will widespread. I don't see how CDs relate to real-time news; except for archives. Computers are getting so cheap that you can afford to dedicate one to an application -- and network them to share data, multi-tasking is another way to do this -- but too clumsy now." --1244

"I do not know how to think about this kind of question. I think that the technology is secondary, society and psychology are the more important. I suggest an exercise that might help to think about thinking about this question. What might be the patterns of information usage if there were no constraints on cost of transmission." --1248

"I don't know of any new technologies that might affect commercial success of CommInS." --1253

"I feel that the availability of a multitasking as for the new line of PC's (PS/2) will enhance the future of CommInS. This will allow CommInS to continue running in the background while you are working on other things. This could help alleviate the biggest drawback of CommInS which is the time required to enter and exit the program. The expanded address space of 286 machines and 386 machines will make possible to keep the summaries resident (or parts of it) without lengthy disk access. I think widespread networks will also have a positive effect on CommInS by allowing the information to be accessed more readily from various locations." --1256

August 1987

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	72	0.00	20.00	150.00	360.00	1440.00	307.89
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	71	0.00	3.00	10.00	15.00	120.00	13.20
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	70	0.00	2.00	5.00	10.00	120.00	10.17
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	71	0.00	3.00	5.00	12.50	120.00	10.51
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	67	0.00	0.00	0.00	2.00	120.00	3.47
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	71	0.00	20.00	45.00	120.00	800.00	86.56
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	70	0.00	5.00	20.00	50.00	300.00	46.31
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	71	0.00	3.00	10.00	20.00	100.00	15.79
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	71	0.00	2.00	5.00	10.00	50.00	6.54
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day	70	0.00	0.00	0.00	1.00	30.00	1.94
55 I find that the information available is of: little interest--great interest	75	0.00	5.00	7.00	9.00	10.00	6.88
70 I find the system has: no value to me--some--great value to me	77	0.00	5.00	7.00	8.00	10.00	6.66
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.	72	0.00	10.00	20.00	37.50	360.00	32.60

93 My interest in the system is: decreasing--unchanged--increasing

78	0.00	4.00	5.00	6.00	10.00	5.05

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

48	0.00	0.00	0.00	2.00	40.00	2.10

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

48	0.00	0.00	0.00	1.00	20.00	1.40

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

48	0.00	0.00	0.00	1.00	10.00	.76

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

47	0.00	0.00	0.00	0.00	25.00	.66

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

70	0.00	0.00	0.00	0.00	60.00	3.29

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

50	0.00	0.00	0.00	1.00	20.00	2.30

181 I use the 2-way system __ sessions/week.

66	0.00	0.00	0.00	0.00	5.00	.51

182 Each 2-way session lasts about __ minutes.

46	0.00	0.00	0.00	5.00	30.00	5.17

212 I own and use a modem with the CommInS system: yes[1] no[0]

73	0.00	0.00	0.00	1.00	1.00	.45

213 I find that different weather conditions cause significant changes in my reception: no[0]--maybe[5]--yes[10]

76	0.00	0.00	1.00	5.00	10.00	2.58

214 I would like to be able to make banking transactions via the 2-way system: no[0]--maybe[5]--yes[10]

80	0.00	2.00	5.00	9.00	10.00	5.36

215 I would like to be able to order merchandise form a catalog via the 2-way system: no[0]--maybe[5]--yes[10]

80	0.00	2.00	5.00	8.00	10.00	4.94

216 I would like the CommInS software to run on a Macintosh computer: no[0]--maybe[5]--yes[10]

76	0.00	0.00	4.00	8.00	10.00	4.24

217 I would like the CommIns software to run on an Amiga computer: no[0]--maybe[5]--yes[10]

73	0.00	0.00	0.00	2.00	10.00	1.79

218 I would like a simple way to eliminate all advisories and digest via a command in the filter line: no[0]--maybe[5]--yes[10]

79	0.00	5.00	8.00	10.00	10.00	7.30

219 When using the 2-way system, I would like to be able to save articles to my disks for later use: no[0]--maybe[5]--yes[10]

70	0.00	5.00	9.00	10.00	10.00	7.76

220 I have shown the system to children (either my own or those of friends): no[0] yes[1]

75	0.00	0.00	0.00	0.00	1.00	.15

221 For children approximately __ years of age

12	2.50	7.50	11.50	13.00	17.00	10.71

222 I found them to show interest in the system: none[0]--some[5]--much[10]

14	0.00	3.00	5.00	6.00	10.00	5.57

260 I will continue to live in the area in the fall, and I want to continue to use the sytem: no[0] yes[1]

80	0.00	1.00	1.00	1.00	1.00	.96

I find that these three filter lines catch articles of the greatest interest to me with the greatest probability.

business
*
Any third world country currently in the news.
-- 1004

comput*
movie*
newssummary
-- 1005

(ibm and announcement) or (commodore and announcement)
commodore amiga
ibm and (pc or personal computer)
-- 1006

(subject: newssummary) (type: nyt)
(category: news) (priority: urgent | bulletin | flash)
diabetes | diabetic
-- 1007

military and electronics
defense and budget or gramm-rudman
military and intelligence or spy*
-- 1009

(priority: bulletin)
ibm pc
boston commuter
-- 1011

Very hard to pin down-- I regularly read from a large number of lines
-- 1013

urgent, bulletin, news flash
boston, not sports
sports
-- 1014

ibm or compaq or (apple and computer) or atari
(subject: business digest)
wang or "data general" or "digital equipment" or honeywell
-- 1019

(subject: mortgage) or (mortgage and interest)
(discount rate)
(honda or mazda or wankel or "rotary engine")
-- 1022

ibm or commodore or (comput)
wang or "data general" or "etc..
health risk
-- 1024

(subject: russia or soviet or ussr)
(text: nigeria)
comput*
-- 1025

(subject: newssummary) (type: nyt)
"star wars" or sdi or "strategic defense"
massachusetts daybook
-- 1028

video* or dis* or optical
india
apple or compaq or palantis
-- 1032

news summary
[(priority: urgent or flash)]
commentary
-- 1043

(type: nyt)
-- 1045

ibm or apple or atari
wang or data general or digital equipment or analog device
urgent news | summary | post bulletin, etc.
-- 1051

(priority: urgent) (not (category: sports or unknown))
compute*
"star wars" or sdi or "strategic defense"
-- 1057

(type: nyt) digital or ibm or computer*
(type: nyt) jew or jews or jewish or hebrew or israel*
(type: nyt) (review and (movie* or film* or vcr*))
-- 1065

innovations
phillipines
MIT
-- 1067

(category: news) (pritority: urgent | bulletin | flash)
israel
aids
-- 1068

weekend advance (type: nyt)
oxfam | quaker | weston & ma | jaffey & nit
pc | ibm pc
-- 1070

ibm
travel
china
-- 1071

(subject: science)
(subject: comput*)
(subject: chemistry) (~sports)
-- 1072

(category: international news) (priority: regular | urgent)
(category: washington news)

(type: nyt) (category: commentary)
-- 1075

(subject: interest rate)
money
computer
-- 1077

librar* | bibliophil*
(category: entertainment and culture | lifestyle)
medicine | physicians | nurses
-- 1080

space shuttle
robotics
weather
-- 1083

britain or wales or england
comput*
(category: news-- etc.)
-- 1084

movies
news summaries urgent
depends on issue of current interest
-- 1086

fda
pharmar*
chocolate
-- 1087

(category: news) (priority: urgent | bulletin | flash)
(congress)
(subject: gov finances)
-- 1091

news flash
nyt news summary
personal finance
-- 1092

ibm
personal computers
aids
-- 1096

(category: news) (priority: urgent | bulletin | flash)
(subject: patents or technology)
"grand prix"
-- 1097

(category: news) (priority: urgent | bulletin)
physics | physicist*
-- 1098

superfund
health (risk or effect)
-- 1100

(subject: nuclear)
(subject: aviation)
[(type: nyt)]
-- 1106

(category: news) (priority: urgent | bulletin | flash)
sex* or child abuse drug
boston (not sports)
-- 1107

(subject: newssummary) (type: nyt)
(subject: mass* digest) | "ap news digest"
(subject: satellite) | satellite
-- 1109

movies
local news
weather
-- 1110

(priority: urgent | bulletin | flash)
airline*
columns
-- 1112

(category: news) (priority: urgent | bulletin | flash)
(subject: wall street)
(subject: movie*)
-- 1116

nuclear or "arms control"
milit* or defens and not (cat: spo* | fin* | advis* | enter*)
soviet | ussr and not (cat: spo* | fin* | advis* | enter*)
-- 1117

(category: entertainment and culture)
(category: lifestyle)
(type: nyt)
-- 1118

ap news bulletins (news summary)
business highlights
findigest
-- 1119

political or social change
(category: news) (priority: urgent | bulletin | flash)
revolution or economic
-- 1121

(subject: business)
(subject: patents or technology)
(subject: wall street)
-- 1124

red sox
chernobyl
mass inst tech
-- 1125

(soviet | ussr| gorbachev) ~(category: sports) ~(category: advis*)
"star wars" or sdi or "strategic defense" or "arms control"
(category: international news) (subject: ~soviet) (priority: ~regular)
-- 1126

(subject: financial)
nyt news summary
-- 1127

((category: fin*) | (subject: busi* | finan* | indus* | market*)) computer*
tax* (law* | legislation) (new | chang* | revis*)
software | "computer program" | "computer programs"
-- 1130

denmark or argentina
ibm or compaq or (apple and computer) or atari
wang or "data general" or "digital equipment" or "analog devices"
-- 1131

videodisc | videodisk | interactive video | "cd rom"

(subject: newssummary) (type: nyt)
museum
-- 1133

"This is too personal, don't you think?"
-- 1134

ecc
"cable television" or "cable tv"
soviet union
-- 1137

(category: lifestyle)
(subject: patents or technology)
(category: news) (priority: urgent | bulletin | flash)
-- 1138

(category: news) (priority: urgent | bulletin | flash)
(gm | "general motors") (not (category: sports))
-- 1139

(subject: news digest) (type: ap)
(category: international news) (priority: urgent)
(category: washington news) (priority: urgent)
-- 1144

"nuclear power" or "nuclear plant" or reactor
"tax bill" or 3838
wine and not houston
-- 1152

aids
science
ecology
-- 1153

tax reform
news summary
russia
-- 1160

"urgent" news
business digest
-- 1161

nasa, space station, sdi
spy
space shuttle
-- 1162

(category: news) (priority: flash | bulletin | urgent)
(category: financial)
dow jones
vaseline | "black light" | twinkies | beer
-- 1163

(subject: comput*)
(subject: bbn nets)
"harvard business"
-- 1165

Depends
-- 1168

ibm
-- 1171

Not currently using.
-- 1173

astron* or astrophys* or paleontol*
(subject: israel*)
(subject: lewis column)
-- 1174

(category: lifestyle | sports) and polo & not ("water polo")
forecast* & weather
farm* | ranch* & (beef | cattle)
-- 1197

Please add any comments that you have concerning the value of the system to children; be sure to mention their ages:

"Good way to interest teenagers in current events - Good for school projects, especially the research features via 2-way radio." --1024

"Kids, like others, should appreciate personal newspapers." --1041

"Probably very good for civic's class problems, Jr. High School and up." --1068

"My nephew is a computer bug anyway -- he was interested, but not sure if he wanted to do anything with it." --1096

"I have no comments since I haven't had a chance to expose children to CIS." --1116

"Children have short attention spans; the simpler to use the better. Successfully using the computer empowers children." --1130

"Possible broadcasts of quizzes, spelling bees, multiple choice quizzes, 'small persons' events around greater Boston Area." --1138

"I use the Boston CommInS System with 7th and 8th grade students in my Library Media Center. Students love to browse and then select and print articles. We began a news program for AP news brief before school closed. Both faculty and students enjoyed it. The filter is very important in selecting articles." --1144

"My two year old son is mostly interested in hearing the computer beep when he hits the keys and the computer is on CIS. Unfortunately, he also likes to turn the computer on and off." --1160

"Baseball fans especially liked getting statistics." --1192

"I think the system would be a wonderful way to get children interested in news and media -- they could set up the key works they want the system to look for and then would become interested in the articles that appear. My guess is it would be best for grade school children -- ages 8 or 9 and up." --1201

"I think it would be valuable to gifted children." --1206

"I have no children. I believe the system could be useful to teach selectivity in information processing." -- 1212

"Software much too unfriendly for children." --1219

"Rather see games and word processing." --1220

"Could be of interest to junior high school age -- news reports, current events, history, etc., classes." --1253

What, if anything, annoys you about the system? Do you have major complaints about the design of the hardware and software? the information available or not available? other topics?

"It would be nice to include a filter to select articles after a certain date. Many times I get weather information that is several days old. If possible increase sensitivity of receiver to allow its use in suburbs. I really would like stock quotes." --1005

"System occasionally 'hangs'." --1009

"I am annoyed with the quality of articles in the Associated Press. I have nearly completely selected only the New York Times, but this limits the number of articles I receive. I would prefer receiving high quality periodical articles." --1011

"1) Inability to include deletion filter as well as inclusion (e.g. get rid of digests). 2) User interface is not self explanatory (though I did get comfortable very quickly, other people might not) e.g. is it really clear to people what the difference is between pressing return and F4? 3) Leaving a machine on (a) costs money (b) puts wear and tear on it (c) leaves it vulnerable to power surges (d) it runs hot and heats the room in the summer (e) it's noisy. 4) Context free nature of filters can be very frustrating. Material should be coded with keywords and subjects and consistently labeled." --1013

"I'd like more help information on the screen - not have to memorize it. (You'll find this is important for new or infrequent users.) The hardware is fine - the antenna is ugly, but probably essential. If user has own FM antenna, can they hook onto it? Question: if hardware - receiver had more amplification, would antenna be needed?" --1024

"1. First -- Definitely need TV Guide on line with search features. For example, what time does the Siskel and Ebert Show come on? Channel 4 changes its schedule so often, that a search function is really useful to keep up with TV clutter. This feature has commercial possibilities, no? 2. Biggest complaint -- response time for routine commands. I have PC-XT. Obviously, one solution would be get a PC-AT. But, I wonder if system slower than it need be. Are stored articles scattered on my hard disk, or are they bunched in a common sector. If they are bunched, will it take less time to fetch them, etc.? In short, is there some way to boost response time for older systems? 3. Second biggest complaint -- duplicates. They still plague the system. In some cases they create a torrent and demolish budget." --1025

"Want system to run in background and be more integrable with other systems (see previous responses)" --1041

"Would like more consistency and availability of articles matching the following filter lines: (subject:front page)(type:nyt); (subject:newssummary)(type:nyt)." --1051

"My major gripe is duplication of stories. Sometimes a story appears four times, right in a row. There must be a way of filtering out duplicates. A second problem is that long articles seem to come in segments: the way the system works, the second segment appears first (sometimes the first does not appear at all). Of course the second segment makes no sense by itself." --1057

"I would like an undelete. I would like a filing system. I need to keep the system on for many hours to receive only a 120 articles (NYT). I would rather have a time when I can tune in to get the NYT articles (Perhaps every two or three hours). I still haven't received a reply from the hotline on what the login password is." --1065

"If the system crashes or I have to stop and log off, it takes too long to read in all of the files again. I just erase and start over -- it's a pain." --1068

"Things that annoy me: 1) Command lines limited to one line. 2) Inability to receive data over modem as a file for later printing/display. 3) Lack of access to AP information over modem." --1072

"In general I don't think I have any complaints. The major difficulty I see is that it really still seems to be oriented toward 'computer literate' people which may make it much less attractive to general public. Also, perhaps use on a machine such as a Macintosh might make it more like a newspaper in terms of graphics/text integration." --1076

"I think the system is basically well designed, but after the novelty wore off I had little interest in receiving news in this way. I prefer newspapers or T.V." --1077

"Stock prices and mutual fund prices are incomplete -- first part of the alphabet only. Not being able to print in background with our Epson printer (LQ1000). Not being able to set the colors. Search command -- search articles already saved for something. This can be done with utilities -- but it would be better within the system. Have several levels of filters -- such as directories, subdirectories in DOS. Would be easier to group, organize, etc." --1084

"The most annoying features of the system are intrinsic to the computer hardware: 1) Ties up my system. 2) Most leave hard drive spinning needlessly while CommInS is running. Information not available: would like more reference information on-line e.g.: encyclopedia and almanac type information." --1088

"The only annoying (but necessary) thing is filling out these forms. The packaging on the receiver, and the cabling could be more attractive. Maybe some search abilities that would work on the collection of files already received. Some way of filtering multiple articles which are essentially updates or identical would make the 'housekeeping' easier." --1096

"I find it annoying when the headers of the articles get messed up and what's described in the header has nothing to do with the article. Also, words or phrases are sometimes omitted. I don't know if this is the fault of the system or the news services -- I often cannot trust what I'm reading. For this to be a commercial success, something better will be needed for error detection/correction. Finally, I wish the system would work faster with the '-r' option. It can take ten to fifteen minutes to restart after a crash!! This is unbearable at times. You definitely need longer filter lines." --1098

"Lack of headlines!" --1100

"I find the lack of user-definable keystrokes annoying. I have to stop and think every time I use the system. I don't like the way you delete articles. I would like to be able to delete large numbers of articles quickly. A better way would be to mark articles for deletion and have them deleted either at a later time or in the background. Also, I don't like having my system tied up during the day when I need it for school work. This makes background operation a necessity. I have no complaints about the hardware. I have found that it is very well designed and have had no problems with it at all." --1109

"Everything is O.K. I would like to see the printer software improved and it to work on non-IBM printer better." --1110

"Multiple articles containing the same text. Redundant articles. The time it takes to erase a filter with many articles in it. Does the system remember which filters were set for signal-on-receive when you exit and re-enter the system! A feature which would erase all files in a filter except those marked 'no erase'." --1112

"I think the user-interface can definitely be improved. I would imagine that some WINDOWS-like interface would help along with the option of using a mouse. Actually, coming to think of it, CIS should be transported to the Mac. The hardware should also be reduced if the CIS becomes commercially available. The current receiver box seems a little big. If Sony can shrink a full blown radio into a Walkman, then that box should be shrunk to a small attachment module connected to the RS-232 port." --1116

"The only thing that really annoys me is not having a function to exit to DOS without having the program." --1118

"The system has become a major source of news to me, particularly about topics I am interested in which don't make it to the newspapers (i.e. AP material). I think the jump of making things mouse driven is useful -- will pull down menus, etc." --1121

"Suggestion for software updates: Indicate which articles have been printed as well as 'read'." --1125

"My only serious complaint is about the choice of editing keys when changing filter lines. The Emacs-like command set is O.K., but not intuitive for non-Emacs users. The cursor control keys could be better utilized: Home for end of line, End for end of line, and Delete to delete only 1 character (like ^D) not the entire line (a very counterintuitive use). Other than that the software is fine, although I have made some suggestions for improvements in the past (such as global filters), nothing really annoys me.

I should note that my use of the system has declined drastically, not because of a lack of interest but due to a lack of need. My computer is at MIT this summer, and I read the NYT here everyday, making BCIS somewhat superfluous. I am also using the computer more, hence BCIS less, and I don't leave it on in the evenings, so less data is captured." --1126

"Mainly the lack of a background feature -- the computer is immobilized during use. To some degree, the search method produces a lot of 'junk' -- i.e. not really a careful screen." --1127

"1) The limitations on filter length and complexity especially using modem. 2) The number of sample filters should be expanded in an appendix; show the effect of various key words. 3) Provide for recovery from attempts to delete articles in 2-way mode. 4) Fix the bug that prevents me from using a Diablo daisywheel or other non-IBM parallel printer. My fix involves using FAKEY to type into PD (print-to-disk), then printing PD's files from disk after exiting CIS or printing them from a pop-up." --1134

"I find it annoying to have to delete three versions of the same story (sometimes). It would be nice if the software only kept the latest/most comprehensive version of a story. Something that would be harder to program would be giving the system a memory of recently deleted articles so that if I delete the 12:05PM story about Reagan's nose, the system won't bother to record the 12:15PM update, since it already knows I'm not interested." --1137

"Not to many things annoy me about the system. Macro customization would be nice to have in the software and an EMI protected half-height card hardware package (which I've been kicking the idea around) would be nice to have." --1138

"The main problem is that I have to use the IBM as a receiver to capture topics and articles coming in during the day. I have 4 Mac's so I would like the software to work on a Mac. That would provide more flexibility in programming." --1144

"Occasional problem when same item is caught by several filter lines -- I would prefer that deleting under one line not delete it from the disk but rather just remove the single pointer." --1152

"The most irritating thing about the system is the sensitivity of the reception to the weather and to the antenna being jostled. It often takes quite a bit of effort to get the reception back to normal." --1160

"Many, many problems with printing articles...they seem to be software related. Must the system create hundreds of files? Why not some method of multiple articles per file?? It seems the variety of PC configurations (mine: I have a modem, but no parallel printer port) are not well supported by the software. Keyword high-liting is non-intuitive on radio version. (All keywords in filter are lit, whether relevant to article or not. Also, only first occurrences lit. Also, no highliting exists in 'remote' modem version, though this may be hard for you guys to implement). I think hi-liting of matching words is very useful. I don't think we have ever received a radio article of '(type: cis)'. Are you guys just keeping us in suspense?!?" --1163

"1) Not being able to have the system run in the background while I do other work on the PC. 2) I seem to see the same or similar articles many times. 3) I would like the system to be more hierarchical and database-like. I have got lines that I've divided into categories." --1165

"Overall pleased with system. Would prefer background operation. Also, fringe reception is a problem at Rt. 128 location." --1171

"1) It takes 'forever' to enter or exit the program. I find this a major drawback. 2) Because my printer is non-IBM (as are probably the majority of printers in use), I am deprived of the ability to form a printing queue or print in the background. This is a considerable inconvenience. 3) If printing did not conclude with a 'go to top of next page' command, much paper and inconvenience could be saved. 4) As mentioned previously, I would like to see a) film listings (including campus film showings), b) a means to examine summaries/articles in reverse order (oldest first), and c) an indication of filter lines matched, without having to search through entire unwanted articles to learn why it was captured." --1174

"The following is a list of complaints and suggestions. Most have been mentioned in previous responses and most are fairly minor.

Hardware/Software:

There should be a key similar to the Alt-D key that will remove reference to an article from one line in the filter while leaving the article referenced to any other filter line that it also matches. I consider this an important complaint. The subject instead of or in addition to the category should be shown in the summary. The date query is inconvenient. If the Directory has to be rebuilt it should include the list of discarded articles from the Directory that was previously saved to disk. Some type of 'macro' feature would make the system easier to use. I run the system in a DESQview window that allows 'scripts' to be written. These are useful in writing remote queries and in the routine operation of the system. I have redefined three function keys and find I can perform the most common operations with my hands only touching the arrow and function keys. The redefinitions I use the most frequently are: F9=Alt-R (used in the Filter and Summary windows); F7=Alt-N (used in the Article window); and F5=Alt-D (used in the Summary and Article windows). For some filter lines I only want the one or two most recent articles matching the line to remain on my system. I would like an option in setting the budget which could be set to 'keep at most X articles matching this line and, once X articles have been captured, replace these articles if articles with more recent dates/times are received'. More types of printers should be supported to 'print in background' There should be some way of moving up and down through the filter with only the filter lines that have articles matching them being selected. There could be some type of switch to switch the function of the up and down arrow keys between this and the normal modes of operation.

Information Available:

More information about using the system should be shared among the users. This could include filter lines that catch certain types of articles and different 'tricks' that make it easier to use the system. This information could be broadcast and also kept in an updated file available via the modem. As always, additional sources of news would improve the system. Could some recurring current AP articles of wide interest be kept on the remote facility?" --1181

"It isn't possible to simply modify a filter line, so when you make a change you have to add a line and remove the old one. This means a day's wait to really get the stories you want. Another thing is the multi-key character of the commands." --1188

"1) Not being able to access articles on disk in word processing software without writing down long file names. I would like to save quotes, etc. for future use in papers and notes to colleagues. 2) The fact this system won't run memory residue, or in background while I'm running other programs. 3) The delay in commands while an article is being saved. 4) The amount of memory required." --1192

"I very much want to be able to run the system as a background task. I have found that my satisfaction with the system varies directly with my ability to dedicate an entire machine to running it for long hours. Most people can't afford this, and I don't know how long I'll have the extra machine at my disposal. I don't know what you mean in your 'letter to users' when you say that 'we succeeded in eliminating duplicate articles'. I still find my disk cluttered with lots of duplicates and near-duplicates." --1195

"1) Despite help from Dave Segal, I have not been able to get the modem features working. (I have a vanilla Leading Edge PC with Hayes compatible modem that works fine on other applications.) 2) Ideally the system would work in background using otherwise idle cycle time. Other software is memory resident; why not Boston CommInS? 3) A meeting with other users would be nice, about two or three times a year." --1197

"We have only just begun to sit down and really use the system and are still learning how to use some of the features. Each day it gets more use and each day more people in our firm seem to be trying to learn it. At this point, I think any problems we have are probably the result of not having used the system enough. We do seem to have some difficulty printing articles -- it would be nice if that were easier to do. Otherwise, so far we're very pleased and find it very convenient and easy to use. As we spend more time with it, I am sure we will come up with suggestions for you." --1201

"1) Unpredictable reception - manipulation of antenna. 2) Having to read all the other material when you want specific information. 3) No stock quotes - specific stocks." --1205

"Annoyances: I can't work on the system while it's printing. I'd like to use the escape key to get out of the summaries

without doing anything. I'd very much like to have a place I can transfer articles that I want to save so that I can delete a long list of new articles in the same category that I don't want, or be able to tag articles that I don't want deleted on the global delete command. I don't think everything works perfectly on my system. I never catch articles in certain categories like science and Russell's art column and once I deleted an article in one category (a duplicate) and it also was deleted from the other category it was in, where I wanted it to stay. Also I once deleted the all category at the end and had to set up the entire system again! I've never dared use that again, but it would be very nice to be able to quickly delete everything and start over fresh." --1206

"A very strange thing annoys me about it -- when I try to exit to DOS the first [time] I press execute it doesn't seem to respond, you need to do it again. I think the same is true in other places on the system, but I am not sure. The documentation could be clearer. Also, sometimes it appears to respond very slowly -- is this my machine -- or is there a way to speed up the software. Commands are slow -- it may be that it is slow because it is an IBM PC rather than an AT --" --1207

"I am using the system on an IBM PC, 2 floppy drives, no modem. The constant disk access was annoying, both because of noise, wear and tear (I leave the system on for days at a time), and the greatly slowed response to interactive commands. I finally got around this by using a ram disk, but the CommInS seemed to crash with any disk <360K.

Would be nice to run the CommInS as a background task, but for the fact that I now have no free memory to run it in. (Perhaps getting a modem would change my views?)

Duplication: As a story breaks and reports get longer and more accurate, filter lines quickly fill up with all the various revisions. It would be nice if only the most recent draft was kept. (Same problem with identical drafts given different times.)" --1208

"Agg! Sports and stock market stuff that invades my filter despite various *not* commands. Days when I get millions of unframed packets. Using my serial port up. Repeat stories that fill my disk. Not being able to save stuff that comes over the modem. Not being able to update my whole filter by modem after a weekend 'off air'. NO academic journals or foreign news." --1209

"No major complaints. No minor complaints. As before, would like to see more databases and the NY Times searchable back further in time. Thanks for the summary. Incidentally, I anticipate being able within a month to be able to run the program in the background allowing for more use!" --1210

"1) Prior to a RAM disk, the continual disk accessing! 2) Would like the cables to lead into back of meter box instead of under the vu-meter. 3) Would prefer a smaller box which could plug directly into serial outlet. 4) Also, would prefer system to go through parallel port." --1212

"Make the system more compatible with multi-tasking by reducing or eliminating the large amount of memory required for database management. Perhaps the database could be kept in expanded and/or extended memory. Can database management be a manually invoked task and/or automatic? Also, the system should warn the user or prompt the user when it is about to reduce the database on disk in certain categories. Use data encryption to increase the amount of data sent at a time and to improve error rates. The software on the receiving end can unpack the data. Is this already being done? What is the 'unpacked' data broadcast baud rate?" --1214

"Due to vacations and other time consuming factors, I have not used the system recently. I plan to resume use shortly." --1216

"Quite honestly, the software is very unappealing. The hardware is fine, although it would be terrific as a plug-in card; I guess RFI would be a problem. Software should be rewritten under WINDOWS (microsoft) as well as something which will run as a background task under DOS. This way the user could trap messages in DOS and browse them in windows." --1219

"1) Ties up PC (dedicated). 2) Receives articles that are almost identical, or that have been updated (e.g. yesterday's weather remains even if today's report is available). 3) Takes a while to build up article base, unless the modem option is used. Wish there were more sources and therefore more depth and diversity of information." --1220

"Minor complaint: (1) The repetition of stories (often more than a day old) with current datelines. Presumably, this is a service for bureaus that have missed, or received a garbled copy of a story: If you could match each incoming story against your data bank - and it would have to be a (near) perfect match so as not to eliminate updates - it might help avoid some of this clutter. (2) I've tried to increase the total number of stories stored to approximately 100, but the system keeps changing it back to 50. I often hit this limit and wonder what I've lost. (3) I still wish there was a master filter line to permit today's date only, no sports, etc." --1225

"One thing which I find quite annoying about the software is the way it deletes articles. I would very much like to see a more flexible system for maintaining the articles and choosing which ones to delete. Perhaps being able to mark filter lines with different aging dates might be an answer. For instance, newssummaries and financial reports over three days old are of little use to me -- so they should be automatically deleted. Likewise, if a news article has not been read in over a week, chances are I have little interest in reading it at this point, so it should be deleted to make room for current news. I think this kind of dynamic flexibility will greatly increase the usability of the system as a whole." --1227

"I would like to assign keyboard functions myself - some of yours are not the best imaginable. (One hand use would be great, but is difficult as is.) In general, though, I love the system." --1228

"Major: Framing errors, printer problems with radio, double dos. Minor: Lack of color." --1229

"Repeating stories, although your attached letter says that it is being taken care of. Some other points (also being fixed): run in background, modem and receiver take up both ports -- nothing left for other things (i.e. hook to mainframe)." --1232

"Multiple copies of the same article. Software trouble when someone improperly exits from system. The delays caused by incoming articles. 'Help' could be better. Thanks for the update letter! Really helpful." --1233

"Having to do Alt-R to read an article is inconvenient. Although I've never done it, Alt-D could be hit by accident. It would be nice to replace Alt-R with a function key!" --1234

"1) Long wait times (even with the receiver off) between '*show summaries*' *command* and the appearance of the summaries. Seems to vary unpredictably. (2) Long wait for 100+ line articles to load before I can see what they're about. Since I delete 3/4 of these after a split-second glance, this adds up to a lot of wasted time. (3) System is 'fragile' when it encounters a printer fault, modem not turned on, etc. I always have to re-boot. (4) A command, 'un-erase last article' would be nice. (5) I would use your remote connection more if it did a better job of letting me know what is going on during the long pauses. Sometimes I begin to wonder if the MIT machine has gone down. (6) Automatic pluralization of phrases within " " would be nice (with an override option). It's annoying to have to enter 'mutual fund' or 'mutual funds'. (7) It would help a lot to have global filters, e.g. CATEGORY: NOT SPORTS or NOT(DATE:[DATE-9: -1])." --1235

"I find the filter system requires more thought and time than I have available now, at least if I want to set the filters tightly enough. I get many articles that are spurious because they happen to contain a keyword or two." --1242

"Nothing annoys me about the system. I wish that ads could be available with a filter line and the software could run under other computers such as MAC II, etc." --1243

"I have no strong convictions about these matters because my use is neither intense, nor intensive. Do you think that the service could be extended to weekly, specialized news sources like Science?" --1248

"I find that the system performs very well overall. A few things that are slightly annoying is the time required to enter and exit from the program when I need to use the computer for another task. Another thing is the duplication of articles that are found. Most of the information that I have interest in can be found via the CommInS. I think that a more up to date and frequent forecast of weather would be nice. Another useful thing would be entertainment schedules (i.e. movies, plays, musicals)." --1256

September 1987

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	71	0.00	35.00	120.00	600.00	1440.00	388.87
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	70	0.00	3.00	8.00	15.00	240.00	14.74
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	68	0.00	2.00	5.00	10.00	60.00	9.20
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	69	0.00	3.00	5.00	15.00	70.00	11.30
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	62	0.00	0.00	0.00	2.00	40.00	2.24
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	71	0.00	15.00	50.00	150.00	650.00	90.35
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	70	0.00	5.00	20.00	50.00	300.00	49.37
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	69	0.00	2.00	10.00	20.00	100.00	16.88
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	70	0.00	2.00	5.00	10.00	55.00	9.15
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day	69	0.00	0.00	0.00	1.00	15.00	1.34
55 I find that the information available is of: little interest--great interest	76	1.00	6.00	7.00	9.00	10.00	7.04
70 I find the system has: no value to me--some--great value to me	75	2.00	5.00	7.00	8.00	10.00	6.83
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.	75	0.00	10.00	20.00	40.00	360.00	28.60

93 My interest in the system is: decreasing--unchanged--increasing

76	1.00	5.00	5.00	6.00	10.00	5.32

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

50	0.00	0.00	0.00	1.00	40.00	3.06

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

49	0.00	0.00	0.00	1.00	20.00	1.74

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

50	0.00	0.00	0.00	1.00	10.00	.91

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

49	0.00	0.00	0.00	0.00	2.00	.21

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

66	0.00	0.00	0.00	2.00	200.00	6.64

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

51	0.00	0.00	0.00	5.00	100.00	4.69

181 I use the 2-way system __ sessions/week.

61	0.00	0.00	0.00	1.00	5.00	.58

182 Each 2-way session lasts about __ minutes.

45	0.00	0.00	5.00	10.00	60.00	9.64

212 I own and use a modem with the CommInS system: yes[1] no[0]

76	0.00	0.00	0.00	1.00	1.00	.49

223 I use the CommInS to find information about stocks and bonds: never[0]--once a week[5]--once a day[10]

73	0.00	0.00	1.00	5.00	10.00	2.62

224 I would like the CommIns to include the page numbers on which the NYT prints its stories: no[0]--maybe[5]--yes[10]

77	0.00	1.00	5.00	8.00	10.00	4.53

225 I would like the CommInS to include schedules of upcoming seminars at MIT: no[0]--maybe[5]--yes[10]

77	0.00	5.00	7.00	9.00	10.00	6.68

226 I would like the CommInS to include lists of new books published by the MIT Press: no[0]--maybe[5]--yes[10]

77	0.00	3.00	5.00	8.00	10.00	5.44

227 If the CommInS system charged each participant $5.00/month, I would continue in the program: no[0]--maybe[5]--yes[10]

77	0.00	3.00	5.00	9.00	10.00	5.77

228 If the CommInS system charged each participant $5.00/month, and if I continued in the experiment, I would be willing to continue to complete a Monthly Questionnaire: no[0]--maybe[5]--yes[10]

76	0.00	2.00	5.00	8.00	10.00	5.38

229 By uploading files to the CommInS, I would like to be able to send information to specific individual CommInS participants (in privacy): no[0]--maybe[5]--yes[10]

77	0.00	1.00	5.00	7.00	10.00	4.47

230 By uploading files to the CommInS, I would like to be able to send information t [sic] any or all CommInS participant (no privacy): no[0]--maybe[5]--yes[10]

77	0.00	3.00	5.00	7.00	10.00	5.04

231 I use the Nexis Information System from Mead Data Corporation (via modem): never[0]--once a week[5]--once a day[10]

75	0.00	0.00	0.00	0.00	5.00	.19

232 I use the Lexis Information System from Mead Data Corporation (via modem): never[0]--once a week[5]--once a day[10]

75	0.00	0.00	0.00	0.00	8.00	.16

233 I use the DIALOG Information System from Lockheed Corporation (via modem): never[0]--once a week[5]--once a day[10]

75	0.00	0.00	0.00	0.00	10.00	.69

234 I use the CompuServe Information Service from CompuServe Corporation (via modem): never[0]--once a week[5]--once a day[10]

75	0.00	0.00	0.00	2.00	10.00	1.23

235 I use some form of "Electronic Mail" on some computer network: never[0]--once a week[5]--once a day[10]

76	0.00	1.00	4.00	10.00	10.00	4.93

236 The PC on which I use the CommInS System is connected to a "local area network": never[0]--sometimes[5]--always[10]

75	0.00	0.00	0.00	0.00	10.00	.91

260 I will continue to live in the area in the fall, and I want to continue to use the sytem: no[0] yes[1]

77	0.00	1.00	1.00	1.00	1.00	.97

I would like the CommInS to be compatible with this word processing program:

Microsoft Word
--1005

ASCII or Display Write 4
--1009

Word Perfect-not important
--1013

Nota Bene
Word Perfect
--1025

?
--1043

Emacs
--1057

MASS II
--1068

Microsoft Word
--1072

Microsoft Word
--1076

We use Multimate Advantage II and PC-Type+, but having ASC II files is fine (as in o.k.).
--1084

Microsoft Word
--1088

Word Perfect
--1092

Word Perfect
--1096

Gnuemacs
--1098

Macintosh!
--1100

KEDIT version 3.52
--1109

Word Star
--1110

Word Perfect
--1112

Word Perfect
--1116

PC Write
--1118

Word Perfect
--1120

Word Perfect 4.2
--1121

Word Perfect
--1125

Word Perfect, XY Write
--1126

Word
--1127

Smart
--1130

Final Word
--1133

Word Star Professional
--1134

Word Perfect
--1138

Final Word
--1148

ASC II is o.k.
--1150

Word Perfect
--1160

PFS Write
Word TALK PC
--1162

None, but I would like a 'save-article-to-file' command.
--1163

DW4
--1165

Microsoft Word - PC
--1171

Word Perfect
--1174

Emacs
--1175

Word Perfect (it already is - can import ASC II files)
--1181

XY Write
--1184

WP or Word Star
--1192

Word Perfect
--1194

Word Perfect
--1195

Wang
--1203

Word Perfect
--1206

Word Perfect
--1207

ASC II files
--1208

Framework II
--1209

Word Perfect
--1210

Word Star 4.0
Word Perfect
PC Write
--1212

Word Perfect
--1214

XY Write
--1219

Word Star 2000
--1220

Volkswriter

--1221

Microsoft Word
--1223

Word Star 2000 plus
--1225

Word Star
--1227

Final Word
--1228

Word
--1232

Lewp
--1234

Word Star
--1235

Word Perfect
--1242

Word Perfect
--1243

Word Star
--1244

Microsoft Word
--1277

Word Perfect
--1295

How would you advise us to distribute another fifty or so CommInS systems in the fall? Should we target a specific group or audience? If so, how would you describe that population? -- as students or not, as home or office users, as young or old, as computer sophisticates or not? Please be as specific as possible in your answer, and please include suggestions on how best to reach that particular audience through newspapers, direct mail, presentations at meetings, etc.

"Use information from previous surveys to determine which suggested uses would be most likely to be commercially viable. Such as researchers, stock brokers, etc. Use some direct mail to these specific groups. You should use both experienced and inexperienced computer users. Also contact specific user groups of Boston Computer Society." --1005

"The highest percentage of users will probably be through computer organizations. Few other groups will have the numbers of knowledgeable and interested people. An announcement at a meeting is the best way." --1011

"Depends on your goals. If you want to prove the applicability to a general audience, then you should go for the widest possible range of PC users. If you just want to provide a useful service, then you should target the groups with the greatest in depth interest in current events and news. I suspect that they could be targeted with small ads in the appropriate (news) sections of high quality newspapers, or perhaps even such analytical 'rags' as Nation." --1013

"I would tag and identify how different corporate cultures respond to system. Pick three sizes of firms. Give a few systems to 'out-going' or 'opinion leader' staffers and see what happens. 1) Try two small firms: a) One in service sector-- maybe a desk top publisher or research outfit, e.g. a political consultant. b) one as opposite as possible -- mechanics shop or bakery. 2) Two mid-size firms: a) Again, one service sector. b) One as non-service as possible. 3) Two large firms: a) Lotus - for service sector. b) GM plant at Framingham." --1025

"For a larger and more diverse audience now about running in a 'public' or 'group' mode, say in reading rooms, libraries etc. Of course there would need to be some additional controls to mediate use, and feedback, by a designated "main" operator (e.g. librarian) and by individual users; but I think the additional exposure and experimental data would be well worth it." --1041

"I think that CIS offers a way to help hearing impaired people keep up with current events. It might be interesting to provide some complete systems (computer included) to some hearing handicapped individuals or group." --1043

"Is this a market survey or an attempt to build a better system? CommInS is not ready for general marketing, so you should probably stick with a fairly sophisticated population...Maybe advertise to the Harvard Business and Law schools or something." --1057

"1) Place notice in Tech Talk (Tufts, Brandeis, Wellesley, Harvard equivalents.) 2) Most specific group would probably already read the NYT or Wall Street Journal. You could offer them editing and timeliness. 3) Group most interested in systems would be a general well read audience, but not professional journalists. 4) Perhaps special interest groups which could scan newspapers for applicable articles: a) Japanese society, French, etc. b) Zionist or Jewish, or other religious groups c) animal rights, neighborhood architecture groups d) Boston Visual Artist association e) Clipping departments of corporations--auto, computer, genetic." --1065

"You should sub-divide into some students [illegible]e faculty(20), some staff (25), you want a broad distribution. Post notices and big add in Tech Talk. Most of my [illegible]y colleagues don't know about the service. Have an article in tech talk and in Technology Reviews. Random mailing to forty faculty." --1068

"I recommended the system to one person I work with and he said he was interested and would write a short letter. It seems that you could get participants through the Boston Computer society or some other group of computer users." --1072

"I'd try to put them out to people in business who are already using PC's. One group that comes to mind is financial analysts or bankers who want to keep up with a particular field or industry -- They're probably fairly sophisticated but not necessarily computer sophisticated. Also, they definitely won't put up with software that doesn't match the case for example Lotus 123. You might try [unknown word] some of the mutual funds or venture [unknown word] people." --1076

"Computer sophistication is not required, but computer society user groups are a good source of interested people (BCS). Would prefer for a large base of professionals to be involved. I believe that having the system (radio station) down from 2-6AM is a real problem for people who need/want early morning news. There seems to be a tremendous difference in the information available to us on weekend mornings vs. weekday mornings." --1084

"Perhaps business executives would be a useful group if you are interested in the commercial aspects of this concept -- I'd advertise in business computer magazines. e.g.: 1) Lotus Magazine; 2) Business Software; 3) Newsletter of the Business/Entrepreneur Section of the Boston Computer Society." --1088

"Most of the people I know who use this type of information are people in technical industry with science or engineering background but a definite bankers start. Thirty to forty-five years old, computer sophisticates. Reach on a bulletin board, Boston Computer Society, or Mass High Tech Review." --1092

"Why not [target] different groups, i.e., 1) Current telecommunications or remote database users (Compuserve, BBSers). 2) People who use newspapers (news professionally and would use the CommInS for work. 3) Total computer neophytes with access to PC's (perhaps train them). 4) Professionals in PC industries -- especially software, marketing -- to get high quality feedback. 5) Journalists, or people involved in competing media professionally. I think you might be able to reach these groups through a combination of referral, posting on BBS's, and cheap or free media like the MIT newspaper. Also meetings of professional groups or trade groups (BCS entrepreneurs, journalists, etc.). Might as well demand a lot of feedback -- they'd be intrigued." --1096

"If you truly are trying to see how successful this system would be to the general public, I think you need to get a cross-section of people of different age groups and backgrounds. I think you have to find out by experiment just who will really like the system by distributing it to many different people. It seems that direct mail to random or carefully selected

people might be successful. On the other hand, newspaper ads get to many different people, and this method will probably be much easier." --1098

"N/A" --1100

"I would recommend advertising in the MIT Tech Talk and a large-audience magazine like the Boston Globe Magazine. The population that would be reached would, on one side, be composed of students, faculty, and other related MIT people (a very technical audience with a large number of computer sohisticates). The other group would be a highly educated section of the general public. The advertisements should refer to a meeting at MIT at which the system will be described in more detail. There should be two meetings, at the first, the system would be described. At the second, the systems would be handed out on a first-come first-served basis. This way, people would know more about Boston CommInS before they get the systems. I would not recommend targeting any one specific group, as that would give biased results." --1109

"I think that the newspaper an direct mail just to get to a different user." --1110

"You should target groups of people -- like a lab, office in a business, etc. Many people would be exposed to the system for a single receiving station, and you could get comments from many different people, instead of one. People in this setting would have to be computer facile, and have the ability to dedicate a block of time on a machine to receive news. The best way to reach these people might be through an add in the Business yellow pages, or trade journals." --1112

"I would imagine that the Boston Computer Society would be a good forum to introduce the Community Information Service. The group, from what I have seen, is composed of a diverse group of computer users - from professionals to home users. It has provided the PC industry a valuable testbed to sound out new ideas. After all, Bill Gates, Steve Jobs, John Sculley, etc., have addressed the BCS about the industry or introduced new products. To reach the BCS members, all you would have to do is put a notice in the BCS publication, Computer update. If you really wanted to target BCS members with IBM-type computers, you could put a notice in their IBM subgroup newsletter and place a message on the IBM subgroup bulletin board." --1116

"I think anyone with access to a computer should be included in the study to get as wide a range of users as possible. The system has something of value for all different groups and, therefore, should not be narrowed down to exclude potential users. Announcing it at computer meetings and having people tell their friends about it can attract a lot of interested people. I don't feel a lot of advertising is needed to gain an audience. --1118

"Since the population must have a PC -- why not go through a broad based membership group -- two kinds of examples come to mind -- the BCS which is of course enormous --- and other professional groups such as the Society for Information Processing Professionals etc. What is needed are groups with broad substantive interests rather than technical expertise." --1121

"The real question is what you expect from the BCIS experiment. Do you want a good indication of general public interest, or do you want to attract computer hackers? This is a research design question more than a publicity question, I think. My guess is that word-of-mouth will account for most of the interest in the system -- so receivers should go quickly. If not, for the computer types you could advertise at BCS meetings and their magazine. Your note in Tech Talk was also successful -- perhaps you should try other local college papers (The Crimson?) as well. If you want to reach a broader audience, perhaps you could get a notice or article in the Globe, particularly the Monday Science section. My guess is that you won't have any trouble distributing the receivers. I would be more concerned over the representativeness of the sample, and that depends on your research aims." --1126

"Target people with no technical background or special computer knowledge. The system is too technical as is to reach a wide audience." --1127

"Boston Computer Society PC Users group. Sophisticated users who could give intelligent feedback. Libraries. Place an ad in trade journal -- most big libraries use dialog." --1130

"A poorly worded question. What is the purpose of the additional systems? I would recommend a cross-section of the population if you're interested in data identifying usage patterns, potential groups of users. Do you want to know who

would have the greatest interest or use of the system? Do you want to identify users who would be interested in subscribing to a commercial system? Distribute systems to a specific group only if you're interested in the group and need more samples, otherwise use a cross-section." --1133

"Target 'opinion makers' i.e. persons of great honesty, who because of their integrity have acquired wealth and influence. While a few of these live in Cambridge, I would avoid Revere. The Governor has a list of 'opinion makers' he ought to share with you." --1134

"The hardware and 'programming' required suggests that you have to focus on relatively sophisticated computer users. Unfortunately, you would be missing a group of people who are interested in this type of news service but who don't have access to or skills with PCs. It would be nice if you could construct a few 'CommInS Boxes' that would be dedicated PCs (with perhaps fewer pieces -- in an integrated package) for non-PC users. Such a box might interest people not interested in the intricacies of modems, serial ports and disk drives." --1137

"Screen new candidate prospects by utilizing data compiled from questionnaire stats. Propose to increase broadcast range to about 60 miles to enable a new 'cross-section' of people/needs to be interpreted. Present most popular highlights of the system (determined by previous/present responses to questionnaires." --1138

"I frankly have no idea who would be interested in this service. For me personally, it happens to be of great interest, because of the work I do, which requires extensive coverage of on going international and security affairs. But it's a special taste." --1148

"I think that value would come from targeting as broad an audience as possible. The requirement of having PC's at home already limits the set of people. Any further limitation might increase average user interest but would give poor indication of acceptability to the public at large. Note: McGraw Hill is starting a similar service here. Are you tracking its development?" --1150

"My student, Steve Scheider, has been thinking about doing a study of 'news junkies'. We would like to get 50 PC Jrs. from IBM and try a test of news junkies (and news avoiders) to see how the system affects their intake of news, what kinds of news they most want." --1158

"You've got a lot of students. If I were you, I'd target two groups 1) heavy-duty computer junkies and 2) people who know relatively little about computers. Targeting the sophisticates is easy (i.e. in computer journals). The new users are harder. Maybe you could get a computer store to give you their new customer list." --1160

"I think that you might want to target high schools with computer programs. They would find the system useful." --1162

"I can't answer this unless I know why you want to add 50 people and who current participants are." --1165

"Possibly target a group with some commonality of interest -- i.e. Finance, Accountants, Stock brokers. Although with general news, the most logical target audience is still educated general population (obviously with computer skills)." --1171

"I am at a loss to know what to advise on this important matter, but have instead referred a choice candidate to you. Mr. Brian Edgerton, an accomplished broadcast engineer, will be writing to you directly. I believe he would be, without question, a great asset to your worthy experiment. I am looking forward to the new features, whatever they may be!" --1174

"I believe you should distribute the next fifty CommInS systems to Research Staff RA Graduate Students and Vroppers at MIT who are working in relevant technologies such as telecommunications, information technology, media technology or electronic publishing. One of the more interesting aspects of CIS is its potential development through intersection with other areas." --1175

"It depends on whether you want to get an idea of how CommInS would work with a population something like the 'general public', or with a slightly more sophisticated population (e.g. PC users). I think that computerized information

services for the general public is an idea whose time has not yet come -- and the failure of the Knight-Rider, AT&T and CBS/IBM experiments tends to confine this. The midst success of services such as Compuserve, The Source, and Delphi is based on a population of users with modest computer knowledge and specific interests in using on-line information services. If you're interested in going after a wider population of PC users (say, in New England), an article/ad in Boston Computer Currents or a national publication such as PC or PC World would get a lot of responses." --1178

"People who cannot read or have difficulty reading newspapers. Contact BCS handicapped groups: Vision Foundation, Watertown MA, 926-4232. It would be good for the experiment to find some people who got a computer for some specific task but who are not really very interested in computers for computer's sake. I don't know how you would contact such people." --1181

"It seems that you want to turn this into a commercial venture. In that case you should decide which sector to go after and recruit the next bunch of users from that sector. I think business types would be the most interested and willing to pay (forget students if you go commercial) so you should target them. Contact small local businesses, preferably not computer-related so you don't get scooped, and have them set up systems in employee lounges or lunch rooms. You could even give them a non-modifiable filter if you wanted. After the execs get to play with the system they'll want their own." --1188

"This is an issue to which I have given considerable thought and I hope to discuss it soon with Gifford. You should attempt to distribute the systems to the general public, perhaps half to current owners of PC's and half to non-owners. The non-owners would be lent PC Jr's for the duration. Using focus groups and depth interviews, in addition to the monthly surveys, you could then assess a wide variety of factors concerning consumer interest in interactive news collection technology. The sample could be drawn from consumer lists currently owned by the Audience Research facility, or through some other means, focus groups conducted by ARF." --1192

"One interesting and important question to be addressed is whether CommInS appeals only to people with a strong interest in computers, or to some other niche markets, or whether it is a viable mass-market consumer product. How much do you know about the background of current users? I'd be very interested to know how non-computer sophisticates respond to CommInS. Perhaps such people can be reached via retail outlets that sell computers to them -- Radio Shacks, perhaps? Other possibilities -- target information to attendees of classes and seminars aimed at beginning users, such as some of the workshops offered by the Boston Computer Society or its IBM users's group. Direct mail or presentation at the course sessions should be good ways of implementing this latter suggestion. It might also be interesting to pick a class at some school which has the necessary hardware and see whether and how access to CommInS can be used by students and teachers to enhance learning." --1195

"I think students might have more time to experiment with the system and really take advantage of it. However, I think the work force should make time to learn about it. I would target students first -- computer sophisticates, preferably, as they will be more open to the idea. You should probably advertise somewhere, offering a free demo. Once people see what the system can do, they are impressed, I think. If you do not target a specific audience, you should tailor your approach to each audience you address -- students will have different needs/interests than office users, home users, etc. Direct mail is probably the best first step with an opportunity to see a demo if the recipient sends in a form or something. Good luck!" --1201

"The answer to this question really lies in what goal(s) is to be accomplished for CommInS. In terms of marketability or commercial prospects, perhaps the best criterion would be office placements. I do not think computer sophisticates or not could matter since the system should appear a wonder to both. Even though my own usage is not too great at the present time owing to the press of business, I do think some consideration could be given to governmental/institutional users. For instance, while our system sits in the MIS department, city financial and press (public information) officers have had occasion to use the system (both radio and modem)." --1203

"I think if you're really interested in marketability, you might now attempt to get into the amateur or non-computer user arena by trying to interest older people (even through groups or homes for the aging or senior citizens) or school age, by advertising through high school systems in town suburbs. This would extend the use of computers your system into the broader public and have the advantage for older people (since the system is easy-as-pie to use) of feeling younger by feeling they are able to participate in the computer age. If you can make a version that can run on Commodore, you'll have direct access to average homes, too. I'm an art historian. To reach them: College Art Association, 149 Madison." --1206

"I read a short piece about the CommInS system in a BCS publication. That would be a good way to reach a wide variety of people, who could all benefit from the system. One other way I might suggest is contacting local area high schools for interested teachers and students who often have access to computers and modems and could do class projects together. Also, another interested group might be NENON -- New England On-Line Users group which publishes a magazine called Log-on. This is a group of librarians, information brokers." --1207

"Why not try contacts through the various BCS user groups? The IBM PC, consultant and entrepreneures, and communications users groups would all be potentially interested. Each could be reached either by a presentation at their monthly meeting, or putting an ad in a group's monthly newsletter. (Full articles describing the system might also be accepted for the newsletters.) For more information contact: Consultants/ Entrepreneurs: Charlie Tillett(meetings)-570-4119, days; 923-8185, evenings. John Chatterton (newsletter) - 275-1800, x4045. IBM users: Mark Johnson (publications) - 923-2283. Mike Rohrbach (director) - 235-8830. Telecommunications: Dick Teneyck (director) - 239-1071." --1208

"BCS User Groups. University Libraries. No other ideas. Do a Wall Street Journal article and they will find you, better still approach Boston Business Journal to do a story on the experiment. Whenever I show audiences my filter and news I get enthusiastic responses. Try that Shows with Kodak Datashow." --1209

"Boston Computer Society 'on-line group', students in Political Science classes, students in Business/Marketing classes, libraries and librarians." --1210

"Yes, you should target a specific group -- Business Executives, particularly info handling middle/upper managements. Get approximately one-third of the total systems you allocate to this group into use by: senior corporate execs, small business owners, and middle management in info sensitive industries. Contact through SBANE (Small Business Associates of New England), local chapters of AMA (American Management Association), SME (Sales and Marketing Executives), MIT Alumni office/directory. Aside: My wife expressed some interest in the system as she is just learning a computer system. When I explained the basic procedure to go from menu to article and back, she became disinterested, commenting that there were 'Too many keys to push. I'll read the paper quicker!'" --1212

"I would target professional and college students (future professionals) for the new distribution of systems. This group is the most likely to buy and use a CommInS system in the future. To contact these people I would put ads in papers, send flyers to large Boston corporations, and put flyers up at local colleges." --1214

"Would target users who read specific information early, up-to-date. These include: personal investors and consultants. Would not consider age or computer knowledge a prerequisite (although of course a computer is necessary). I think the best way to target these new people is to ask current CommInS participants for references." --1219

"Check the demographics and responses of current population. Pick a population which either covers where suggested market may be or is different from current population. Could try older people who are not computer literate or blue collar, etc. For the volume and location should be relatively easy. Method really doesn't matter just as long as users represent what is needed to satisfy the request." --1220

"I think the best way to get 50 more people involved is through recommendations from current users. When I have discussed this experiment with people I know, some are more interested than others. In this way you will get people who are really willing to participate. The target group should still be computer users." --1221

"Try to get a different group than currently involved--outside the MIT community, more in the business world--not sophisticated computer users. Junior high/high school kids is a good idea. Ads in public schools might do it." --1223

"I don't really have anything to suggest." --1225

"I think that there are three major target areas for use of this system: Home use, office use, and use by students. When the system becomes commercially available, the largest potential group was also probably under-represented in the first distribution of the system. Therefore, it might be a good idea to target family environments whose residents are not necessarily computer sophisticates." --1227

"The two main groups I see as potential customers for a CommInS type system are hard core news buffs (addicts) and people wanting a clipping service for various topics. I expect that many of the people in these groups are not sophisticated computer users. Also, I doubt that many students are in either of these groups and would not be very useful in projecting the needs of future users. Users of both target groups might have the system at home or at work, so I don't think that should be a criterion. As for age, my guess is that the news addicts will tend to be a bit older, while the clipping service people could be any age. To attract news buffs, see if you could get a 20-30 second (free) spot on local news broadcasts, especially MacNeil/Lehrer, Channel 2 News, and/or NPR's All Things Considered. That's where you get the heavys. A personal note: I did not use the system at all this month. After a ten day vacation, I have been quite caught up in preparing for a year of research in Costa Rica, and never turned the system back on. I think that my use will be quite low over the next two months (until I leave), so I will try to return the system soon. Thank you for allowing me to participate. I really enjoyed the system tremendously. Good luck." --1228

"I would recommend targeting your audience. Your current population is probably mostly hacker types, not the potential audience of the system." --1232

"You need to get outside the MIT community. This could be done by some direct mail advertising." --1234

"1) Move toward computer non-sophisticates. The feedback you get and improvements you make as a result will a) benefit us all, and b) expand your potential market. 2) Try a few librarians, maybe corporate librarians and law firm librarians. 3) Try a few public relations firms." --1235

"Suggest you advertise in local newsletters (e.g. PC report and other newsletters of the Boston Computer Society. Ask interested persons to call or write. Make sure they get a lecture or written blurb about their responsibilities, then have meetings for those still interested." --1242

"Place an add in major newspaper describing 'CommInS Project' adding time and date of next meeting stating that only fifty systems are to be given away. (In case more people come names will be drawn at random.) The ad should exclude from participating students, faculty and all MIT employees. This would allow project directors to better assess what kind of people from the general public would be interested." --1243

"Try some handicapped people." --1244

"In my estimation your system is appropriate for the business community, and I would recommend that this group of people be targeted for your next distribution. More specifically, executives or managers who have exclusive use of a personal computer to help manage their time, appointments and finances might be receptive to having timely financial reports and stock market prices with their coffee upon arrival at work or in between appointments during the day. Since I am not in the business world I can only guess at the best way to reach qualified people of this type. However, for people who may not have experience with computers other than using commercial programs, I do think that direct contact would be most beneficial as a way to dispel any fears that they might have in using a new system." --1277

"It depends mainly on your research goals, and your experience with present people. I, however, would be interested in seeing it used in consulting firms/ social scientists who are trying to track current events. Reach them through classified ads in university newspapers; through a small ad in Business Section of the Boston Globe. Also, make telephone calls and follow up with letters to ten or twenty Boston area consulting firms." --1295

October 1987

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	71	0.00	50.00	180.00	480.00	1440.00	352.89
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	71	0.00	5.00	10.00	15.00	80.00	12.00
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	68	0.00	4.00	6.00	15.00	60.00	10.04
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	70	0.00	5.00	7.00	10.00	60.00	10.24
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	67	0.00	0.00	0.00	2.00	15.00	1.84
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	69	0.00	25.00	50.00	150.00	3000.00	149.05
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	69	0.00	10.00	30.00	60.00	400.00	55.28
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	68	0.00	5.00	12.00	20.00	100.00	20.46
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	69	0.00	2.00	5.00	10.00	50.00	9.01
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day	67	0.00	0.00	0.00	1.50	20.00	1.46
55 I find that the information available is of: little interest--great interest	75	1.00	6.00	7.00	9.00	10.00	7.12
70 I find the system has: no value to me--some--great value to me	76	2.00	6.00	7.00	9.00	10.00	7.18
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.	76	0.00	10.00	20.00	40.00	120.00	27.12

93 My interest in the system is: decreasing--unchanged--increasing

76	1.00	5.00	5.00	6.00	10.00	5.53

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

50	0.00	0.00	0.00	5.00	25.00	3.20

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

49	0.00	0.00	0.00	2.00	10.00	1.44

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

50	0.00	0.00	0.00	1.00	5.00	.91

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

49	0.00	0.00	0.00	0.00	5.00	.38

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

66	0.00	0.00	0.00	2.00	45.00	3.20

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

52	0.00	0.00	0.00	5.00	30.00	3.31

181 I use the 2-way system __ sessions/week.

60	0.00	0.00	0.00	1.00	5.00	.71

182 Each 2-way session lasts about __ minutes.

38	0.00	0.00	5.00	10.00	100.00	11.97

212 I own and use a modem with the CommInS system: yes[1] no[0]

74	0.00	0.00	0.00	1.00	1.00	.42

237 I use the CommInS to find informaiton about the arts and theater: never[0]--once a week[5]--once a day[10]

75	0.00	0.00	2.00	5.00	10.00	3.07

238 I think that a commercial system based on the CommInS system would appeal mainly to: personal use[0]--business use[10]

73	0.00	3.00	5.00	7.00	10.00	4.92

239 I am now a member of the Boston Computer Society: yes[1] no[0]

75	0.00	0.00	1.00	1.00	1.00	.51

240 I would like access to the monthly schedule of events run by the Boston Computer Society via the CommInS: no[0]--maybe[5]--yes[10]

7:	0.00	5.00	7.00	10.00	10.00	6.61

241 I would like to be able to buy items from on-line catalogs (e.g., computer supplies, books, clothes) via the 2-way CommInS: no[0]--sometimes[5]--yes[10]

73	0.00	2.00	6.00	8.00	10.00	5.45

242 The current software searches the full text of every news story to match words and phrases in the current filter. I

would like to be able to control (disenable [sic], enable) this feature so that the software only searched the headers for matches to my

74	0.00	0.00	5.00	6.00	10.00	4.26

243 I use my PC computer for "electronic publishing" with a page-layout program: never[0]--once a week[5]--once a day[10]

75	0.00	0.00	0.00	2.00	10.00	1.25

244 I use the BIX (Byte Information Exchange) maintained by Byte magazine: never[0]--once a week[5]--once a day[10]

75	0.00	0.00	0.00	0.00	3.00	.21

245 I use a laser printer on a regular basis with my PC: no[0]--sometimes[5]--yes[10]

75	0.00	0.00	0.00	8.00	10.00	3.47

The current software searches the full text of every news story to match words and phrases in the current filter. I would like to be able to control (disenable, enable) this feature so that the software only searched the headers for matches to my filter words and phrases:

I have these comments on this issue:

"As I have said before, the big problem is that the stories should be consistently coded with keywords. Even the headers are a mess as it stands." --1013

"That is one vital step toward smart retrieval." --1041

"Headings are of little use!" --1057

"The header is not always an accurate reflection of the article." --1072

"Doesn't the software already have this power via the query language?" --1088

"But, I would never use it (thus '0' above) if the software didn't check this enable/disable for each filter line. In other words, if a filter line contained only header key words, then I could choose whether an article matching this line is to be searched any further. For example, if my filter line were (subject: foo), then I could choose to put all articles with subject 'foo' under this line without duplication in some filter line such as which bar is also contained somewhere in the articles caught by the '(subject:foo)' above. Currently, I see very little use for such capability. Why is this being proposed? Am I missing something?? New features such as longer filter lines and a faster recovery (CIS -r) are much more important." --1098

"It's not a big deal with me." --1112

"It would be a nice feature but not crucial." --11[illegible]

"Use of subject, category headings seems to work." --1125

"Seems useful only in unusual circumstances." --1130

"I would be more interested in being easily able to separate 'articles' which deal with a single story from articles that summarize many stories." --1133

"Not unless the headers are written with this feature in mind!" --1137

"--and word combinations." --1138

"If it would allow faster searches as database grows in size." --1171

"This feature should be enabled on a per-filter-line basis. Currently, some filter lines are selective enough, and others pick up too much from matching the full text." --1178

"I'm not sure I know what 'header' means. But if I can search the first part of a story (only) to find the main topic. This would help avail extraneous articles." --1181

"See defects in essay that are more important to me, which may fall under a disenable/enable category." --1206

"I use many filters that search subject, category, etc., but I find this unreliable." --1208

"I frequently get articles of no interest because of the full text filtering procedure. Creates clutter." --1212

"Would like to be able to capture both types but distinguish between them: i.e. major vs. minor reference." --1219

"How do you screen out too many matches? Also, duplicate articles or old ones." --1220

"This is certainly an interesting feature, however most of the articles I read are caught by text matching rather than header matching." --1227

"The headers -- do not describe the text." --1229

"Not a high priority for me. More important is some way to screen out duplications." --1235

I would like the CommInS to be more compatible with these other software programs which I use on a regular basis:

Windows
--1009

Not needed
--1011

Don't care. I do use Word Perfect and 1,2,3 quite a bit.
--1013

1. Data management program for finding articles on disk. Indexing or organizing. 2. Not a Bene -- word processor. 3. Smart Com.
--1025

Various retrieval programs
Editors
DBMS's.
--1041

Lotus 123 (for stock quotes)
--1043

Microsoft windows
--1065

None
--1068

Bauyan Network
--1070

Microsoft word
--1072

MS Word
Windows
--1076

Microsoft Windows

--1084

Word Perfect
DBASE III+
--1096

Macintosh Word!
--1100

Epsilon/MSC, flight simulator, my programs (i.e., it should be able to run in the background--under UNIX?).
--1112

I can't think of any.
--1116

PC-Write
Paradox
Metro
--1118

WORD
RBos System V
ZYDNDEX.
--1121

Word Perfect
DBase III
Supercable
--1125

Word Perfect
--1126

N/A
--1127

PC outline
--1130

Carousel
DesqView
Windows
--1134

Word Perfect
Reflex
--1138

Voice output for the modem feature.
--1162

If it were a background program, then: MicroSoft Word, Lotus 123, Novell Network O/S.
--1171

Word Perfect
--1174

DesqView
ProComm
RBase System V
Lotus 123
--1178

I don't really understand the issue -- I have no problem with ASCII files in my word processor. I have not found numerical data files I want to manipulate. Am I missing something?
--1181

Word Perfect
Lotus 123
--1192

MS Windows
--1195

None
--1201

Word Perfect
--1206

Word Perfect
--1207

Word Perfect
--1208

Framework II
--1209

None I can think of.
--1210

Wordstar. What I really need is the ability to print the articles.
For reasons I don't understand, I have to save articles as file and
print from DOS command level with TYPE d:filename. A hassle!
--1212

Double Dos
EMS device driver
--1214

Microsoft Windows
Quarterdeck DesqView.
--1219

Have a 6300+ (AT&T) which can run MSDOS under UNIX. Unfortunately
CommInS can't keep up with the traffic.
--1220

Microsoft Word
--1223

Word Star 2000+
--1225

Microsoft Windows
--1227

Double Dos
--1229

N/A
--1233

Word Processing
--1275

Microsoft Word 4.0
Windows
--1277

Word Perfect 4.2
--1295

I would be most interested in buying these specific or generic types of goods and/or services via the 2-way CommInS system:

Computer hardware and software.
--1005

Bulk food, computer items.
--1011

Photo, computer, sports goods, other specialty items, theatre tickets, plane tickets.
--1013

Books, diskettes, bank account transfers.
--1025

Computer supplies, documents/books.
--1041

Computer software?
--1043

Electronic components (IC's).
--1057

Software, household items, clothes.
--1068

Probably computer supplies etc., possibly books.
--1076

Computer supplies, books.
--1092

Books, records and cd's, publications.
--1096

LL Bean.
--1100

Radio-electronics, T.V.'s, etc.
--1109

Software and hardware (BCE?), Books, Pizza.
--1112

Books, discount computer equipment (from PC Connection, perhaps), Alcohol.
--1116

Computer Supplies, Office Supplies/furniture.
--1118

Computer supplies and equipment.
--1121

Real estate, stocks.
--1127

Provided prices were competitive! Floppies, pinfeed paper, ribbons, SW utilities.
--1130

Brand name computer supplies, software, not clothes.
--1133

Books/Catalogs/Magazines/Clothes. Advanced notice of discounted salable items, also.
--1138

Publications.
--1158

Concert tickets, Technical books.
--1160

Disks, other computer equipment, magazine subscriptions.
--1162

PC software/hardware, electronic goods.
--1165

Banking (funds transfer, bill payment), office/computer supplies, food supplements (vitamins and minerals etc.).
--1174

Consumer electronics, personal computer hardware/software, automotive parts. --1178

Electronics.
--1184

Not sure.
--1201

Stock quotations at very nominal fee.
--1205

Computer additions (cards, screens) and supplies (ribbons for printers, and programs but only at discount prices.
--1206

Computer equipment, books, not too much advertising.
--1207

Computer supplies, books, air tickets.
--1209

N/A
--1214

Computer supplies.
--1216

Discounted software, discounted books.
--1219

Computer supplies, appliances, electronic equipment.
--1223

Software, hardware, supplies.
--1225

Apartments, food sales, furniture, sales at stores.
--1233

Hardware, software, other information services.
--1234

Tickets to events listed on the system (if you begin doing that), technical and specialty books (search a subset of Bound Books in print).
--1235

Books -- MIT press, MIT -- auction items, miscellaneous books on sale by university libraries.
--1243

N/A
--1275

Computer supplies, office supplies, apartment rentals listings.
--1277

In your opinion and experience, what is the single worst aspect of the CommInS hardware and software? In other words, what aspect is most in need of improvements?

"Software needs to filter articles by date. I get too many old articles. Need to increase transmitter range." --1005

"System occasionally 'hangs', requires dedicated use of serial port. Has no built-in feature to run 'in-background'." --1009

"The Associated Press. I would like to see some quality articles such as Time Magazine, Atlantic Monthly or other magazines. I have been sitting at my computer for the last hour since the girl in Texas was rescued from the well and have received only one article that said she had been rescued and almost nothing else new. So of what value is the Associated Press?" --1011

"Lack of real effectiveness in the filters. I still say that the right solution to this will come when you publish for this unique medium. This will make it practical to code related stories consistently, replace duplicate intelligently, and so on. Filter lines which can reject as well as accept (e.g. reject all digests) would be a big help. I hate the noise and expense of leaving my AT on all the time. I sometimes mess up my database by forgetting to do -r after a power glitch. I would think an automatic 'not shut down clearly' flag would help. -r is painfully slow." --1013

"1. Does not run in background. 2. Too many repeated articles." --1025

"Not to be able to leave it running because 1) need to run other programs 2) or if do so, eventually get disk errors which crash out directory." --1041

"It is a little slow on a PC-1...an AT class machine would be better. It uses a fair amount of storage space -- perhaps a built in squeeze/unsqueeze facility might be useful. I like to read and then delete articles immediately. It would be great if CIS kept a file of articles read that spans invocations so that I don't see the same article the next time I use CIS. Of course this feature should be switched on/off. A global time [filter] might be useful -- i.e. only articles in last 24 hours should be accepted. Repeats of essentially identical articles should be suppressed." --1043

"As far as the software is concerned, is the apparent inability of the program to go back to the previous article. In many instances I would have liked to have had this feature, as I've often received parts of articles and want to be able to look for the other part of the article on the disk. This brings me to another aspect: sending of partial articles. I find it annoying reading an interesting article with parts missing." --1051

"Duplication of stories! The system will catch three or four copies of the same story. That takes time to filter out manually and reduces the number of stories I want that are caught. The system should be better at recognizing stories held and/or read already." --1057

"Need a filing system so that I can save articles under a classification of my choosing. Print using Laserwriter. Longer filter lines." --1065

"1) Doesn't run in background of Dos 3.2. 2) I would like the total number of captured files to be at the top, rather than the bottom of the filters--for me, it's on the next page, so I always have to skip down to see if something is on the next page!" --1068

"Neither the menu nor the command system seems to have easily remembered structure for one key operation of the most common commands. Read next in this summary; delete this; delete this and all rest of the summary; print this; read next available article in next non-empty summary." --1070

"The fact that articles captured via modem cannot be stored as files. I can see no good reason for this. I have my system at home with a dot matrix printer that is noisy and doesn't work well. I would like to be able to bring a disk into lab to print out the occasional article that I want to keep or show somebody else like I can with data received via radio." --1072

"The hardware seems o.k., maybe having an optional bus type input rather than through cerum ports would make it more attractive so you wouldn't have to tie up a port (similar to many mouse devices which are available with a bus type input. Also, it might be nice to have a mouse input at times. This is especially important if you try to get more computer types to use this system (I think!)." --1076

"Incomplete data--*stock market information*--and articles that end abnormally (in the middle of a sentence, etc.) Also important: 1) duplicate articles that clutter disks (those may not be identical however--sometimes everything is the same except category: and/or subject:). 2) would like to copy article to disk from within CIS, preferably changing its name at the same time. (from N870n.n to SILK 1023). 3) should be able to print in background with more printers--can't with our Epson LQ even with the IBM module." --1084

"Database of text should be indexed in a manner that allows the user to scan the diverse topics -- and thus learn of topics which he or she did not conceive of a priori." --1088

"That it can't run in the background so that computer can be used for other purposes. It would be nice to selectively pick articles/information to save to disk while deleting others as a batch procedure." --1092

"1) Appearance of receiver. 2) No built in background TSR mode. 3) Accessible only by PC (want Macintosh compatibility). 4) Requirement to fill out these forms (but better than $, I guess). 5) Why not put receiver on a card?" --1096

"Pinpointing it to a single aspect is difficult. Maybe I'll rank them when I'm done. The Hardware: I really hate moving the receiver around. The antenna, if moved, is sometimes (usually) very difficult to place in a position for good/clean reception once again. The Software: My computer is subject to crashes on dry days probably because of static electricity. The time to recover--i.e., to rebuild the directory (125 articles)--is about ten minutes! This is way too long. Improvements in speed in this area and in general are needed: I hate waiting for keystrokes to be processed. Can't anything be done to speed up the background tasks? Something needs to be done to prevent corrupted data from creeping into the system so readily. All too often I get articles with mangled headers, missing or incorrect characters, missing words, missing phrases, or missing sentences! Something needs to be done to reduce this problem. Finally, longer, more complex filter lines are needed!!! I can customize only a few of my filter lines to my satisfaction. The rest often bring unwanted articles. In addition, the software should allow the user to eliminate a particular type of article from being caught elsewhere in the filter. For example: - (category: advisories) would keep all articles with that category match from being caught by the system regardless of the contents of the remainder of the articles." --1098

"Not on Macintosh!" --1100

"I have no problems at all with the hardware, in fact I think it's an excellent design. On the other hand, I have many problems with the software. I would like background operation with hot-key selection. I also dislike the key-bindings. I find it very awkward to use my editor and then switch to the CommInS program. Most editors provide user-definable keys; it's something that would be useful with the CommInS software. The deletion mechanism is also very awkward. I would like to be able to mark multiple items for deletion, and then have them deleted at a later time (preferably in the background)." --1109

"My major complaint has been the inability to save articles to disk, in the sense that while in an article, you say <save>, and the system responds, 'filename?'. As it is now, I have to note the article number, pop out of CIS, change the article names and then re-enter CIS. I don't like printing articles because floppy (&HD) format is much more convenient, and if I went to show someone something, I can pop it up on the screen rather than searching through a knee-high pile of papers. In summary, I want a feature to re-name the current article filename to something of my choosing." --1112

"Hardware: You need much more bandwidth. I would like to see the full prices of the stock and options market, but you obviously don't have enough bandwidth to transmit that information along with the rest of the news. On top of that, if you

got enough bandwidth, you could also transmit graphics (like the comics?). Software: The software is pretty solid, but I would still like to see more of a windows-like interface that would accept mouse input. After all, there's virtually no typing required except for executing commands. That's an ideal situation for a mouse." --1116

"Not being able to exit to DOS without leaving the program." --1118

"It is difficult to use for people not familiar with PC's. We have created a Batfile. A standard BAT file would be nice, to enter and exit the system." --1120

"Integration with other 'activities' on the machine including database, windows, and word processing -- also use of some interface such as windows would facilitate graphics." --1121

"I think the greatest problem with the BCIS software is its poor printer support. I have an Okidata 92 that is supposed to be IBM compatible, but I can't get it to run in the background, and waiting for it to print is a nuisance. I think printer support must be greatly enhanced. (It could at least include page breaks at the bottom of the page -- ^l is pretty universal.) It would also be handy if files could be renamed and moved from within BCIS. This would facilitate keeping copies of interesting items with mnemonic filenames. I think that BCIS, combined with larger hard disks, opens up the possibility for creating a 'personal news archive' holding selected items of interest for easy retrieval. In order for this to happen, though, BCIS needs: 1) An easy way of 'archiving' information -- putting it into longer term storage so that there aren't always lots of files in the browse area. 2) A relaxation of the 90-day legal limit on keeping data. (Which is a total absurdity. There is no limit on newspaper clipping.) 3) Large capacity cheap hard disks (or WORMs). Finally, it would be very convenient to be able to run BCIS in the background. For that, however, I'm afraid that I'll need a 386 machine with desqview and I guess you can't provide that stuff." --1126

"No opinion yet -- generally satisfied." --1127

"The remote database access is disappointing. It's clumsy to use. It's difficult to hold on to articles of interest." --1130

"1) The lack of ability to conveniently distinguish between articles which treat a single subject from those that are collections of summaries about many stories. There are times I only want to read summaries (don't have much time) and times I only want full articles. 2) The lack of ability to 'group' several filters together to impose higher-level structures on the articles. The intent is to integrate the 'atomic' level filters into a smaller number of 'molecular' clusters of related information. This would allow for 'logical' layout in place of 'physical' layout. 3) When using A-W at the filter window, the system should not delete unread articles matching that filter that also match one of the other filters (which is what it seems to do now. I use A-W to 'houseclean' and seem to have lost articles matching other filters that I intended to keep. The 'read/unread' flag should be maintained by filter not just by article. I read very differently the same material which is captured by two different filters, especially when in a hurry. (I set my own 'mental filter' to concentrate on the topic of the CommInS filter, and wind up ignoring other topics. 4) Why can't printing occur in the background for non-IBM printers? It's annoying to have to. 5) How about support to let the user compose modem dialing strings for non-Hayes modems. Then I'd use the 2-way service. 6) Why not make the software smart enough to monitor and tabulate the usage data? User could call it up as a window and enter date in questionnaires. It would make data collection much more consistent, reliable, and easier!" --1133

"Limitations in query formulation/syntax/size compounded by the fact that, although your questionnaires have garnered sample queries from us users, you have published little in the way of examples. This results in garbage-in, garbage-out or for those who like short, concise executive summaries: GARBAGE. Please help stamp out garbage." --1134

"If the data rate could be increased, it would take less time to survey the info base. Then I wouldn't feel so uneasy about leaving the computer on unattended for long periods. As it is now, (I don't have multi-tasking software) I have to find a time when no one is in need of using the PC during the daytime. I don't like leaving the computer on all night every night just for CommInS. This situation could be improved if I used multi-tasking software, but I doubt it would with all of the software people use on my PC. The software is still not smart enough to do a thorough job of screening the information. I've reached the point where I have several lines with complicated expressions but still have to sift through lots of useless information." --1137

"Broadcast range limitation. An increase would allow relocation of receiver as needed (I find myself staying at another residence as a requirement of my job, disabling me from using the system on a daily basis.)" --1138

"I have no problems with the system. For my specific needs, it is just about right." --1148

"I have had difficulty with printing and modem dialup subroutines with my system. I think it's primarily because my clone is not fully PC compatible IT is a Wang emulation of SC Dos." --1158

"The single worst aspect of CommInS is the weakness of the reception -- i.e. in bad weather the reception tends to be terrible, and sometimes its bad for no apparent reason. The reception seems very sensitive to minor movements in the antenna, so that some nights we catch 300 articles and some nights we catch zero." --1160

"The antenna system."--1162

"The software makes too-rigid assumptions on how a PC can be configured in hardware. Specifically, if I have a PC with only one async card, (no modem, no parallel printer port), why can't I: 1) unplug the radio receiver 2) plug in my printer (serial) 3) print an article, at some new bit rate 4) plug in the radio again. (I can't print articles.) P.S. My solution is to note the article numbers (=file names) of interesting articles, and print them from DOS. Second-worst thing: 2-way system could really use keyword highliting!" --1163

"For beginning, the filter language is very difficult. A better interface that allowed you to more easily form information requests would be useful. For example, something that was more menu-driven. Article retrieval is also cumbersome." --1165

"The limited broadcast range of the FM subcarrier used. I am unable to use the receiver from my home in Canton (128 South of Boston), because of marginal reception, so must use it on my PC at work, where I do not have as much time to work with it." --1171

"1) Slowness in entering and exiting the program! 2) As a close second, restriction of background printing capability to IBM-compatible printers is a severe disadvantage. It would be much better to be able to put articles in a queue for printing, and not have printing abort upon touching a key inadvertently. My printer is Epson-compatible (very common). Also, can the 'top of form' command be disabled, to save paper?" --1174

"The area that needs the most improvement is the ability to have the CommInS data gatherer and filter run in the background in an unobtrusive way, so that other programs can run in the foreground and the entire computer isn't tied up. Towards this end, it would be nice it the CommInS software could be split into at least two pieces -- a 'news gatherer/filter' that could be left running in the background, and a 'news reader/displayer' for intersecting with the user and retrieving news items. I have Desqview and 1.5 MB of AST EEMS memory and have experimented a little with running CommInS, but it didn't work very well and I haven't had time to play with it some more. The other area that could use improvement is widening of the information feeds. I'd love to be able to apply CommInS filtering to Usenet feeds." --1178

"Overall I find the CommInS system (when run in a Desqview window with 'scripts') easy and useful to use. I have made suggestions on minor points in the past and will not repeat them. Several complaints about the overall usefulness of the system are: I would like to rely more on the CommInS as a source of information. The main drawback is assuring the completeness of the news coverage. How do I not miss important stories on topics that I have not specifically included on the filter? I can 'capture' all the NYT articles and assure this but its easier to have the Times itself delivered to my door. The problem I have not resolved is how to 'filter' information but make sure 'important' (hard to define) articles get through. If the wire service used a meaningful PRIORITY classification this would help -- but they don't. How can I avoid wasting time receiving multiple articles that are exactly or very nearly the same? There should be some exchange of ideas between the CommInS users. Through meetings, publications by MIT, or through the system itself." --1181

"It does not run in background." --1192

"I hate to sound like a broken record, but what CommInS needs most of all is the ability to run as a background task, conveniently, in all common operating environments. For my taste, that means I'd like to see CommInS as a windows

application. For those who don't want to mess with windows, Desqview et al., CommInS should be available as a TSR program (though I dislike TSR's myself). Here's an unrelated suggestion -- why not build into the CommInS diagnostics some routines that would keep track of those statistics that you ask about in each month's questionnaire? It would make it easier and more convenient to provide accurate responses." --1195

"It is very difficult to print out articles -- at least we find it hard. It would be nice if this were easier. Unfortunately, we had to unhook our system for much of this month so couldn't really use it as much as we'd like..." --1201

"Technical blackouts." --1205

"The worst things are that you can't work on it while you print and any inadvertent key punch will abort the printing. And there is no way (category on file) you can save articles into a separate place so you can read them more carefully later rather than printing them. For instance, if in a large category I want to save one article, I can't skim all the articles and delete the whole set of articles because that would also delete the one I want to read more carefully later. Yet often I don't want to stop to print it because I might want to continue reading, which cannot be done. Am I missing some trick? Also I'd like to know how to get the remote by long distance when I'm on research trips. I'm hooked, so I'd like to 'take it with me'. A way of making it easy for those of us who go out of town a lot at times for research will also improve marketability." --1206

"Exiting from the system seems cumbersome -- when you want to exit it takes too many steps. Also, when you enter a new query -- I wish that the line would be blank when you begin to type. These are very small problems generally the system is easy -- more tips in the manual would be helpful -- in setting up your search terms." --1207

"The searching system itself. Any filter line general enough to be sure to trap articles I'm interested in, traps at least twice as 'junk' articles. Sometimes I can fine tune the filter for better result, but often not." --1208

"Can't save documents to disk with my file name. No comics. No disk save for modem documents. I should be able to use modem search and save the results. No facility to dial in with modem and update my whole filter." --1209

"Aside from simple availability of data bases and searching ability, no real problems with hardware. Software menuing could be improved and made easier and more attractive." --1210

"Cannot print articles. Would like Wall Street Journal on system." --1212

"Memory management needs to be improved. If a large local database of articles is maintained there is not enough memory for multitasking. The software should be re-written to support extended and EMS memory. I like to let CommInS capture stories as a background task while I do other work. Then, when enough articles have been captured, I read them. This way my AT is not tied up while only capturing articles.

"I have no significant problems with hardware or software." --1216

"The user interface. The user interface is simply not conducive to browsing articles. It does not allow you to easily sort articles and put them into personal 'file folders', mark them with special notes, etc. You should be able to clip parts of an article out into a scrap space and put it somewhere else. There should be easy ways to mark many files and execute a command on them, such as delete, or print, etc. windows could be used extensively to partition the screen into various usable spaces, e.g., a tiny window showing crucial reception stats., a larger window with most recently received articles, another window which has all the current articles and other user-opened windows which show the file or files being read or browsed. Pull-down menus should be used in addition to special-key combinations. Color should be implemented. The user should be able to search the articles on disk for particular phrases and zoom in on articles matching those phrases (just an extension of what CommInS already does with its filter). Etc., etc. The only reason I think of all these possibilities is because of the great potential of the system." --1219

"1) Unless you have windows, can't do anything else with the system while receiving radio messages. 2) Computer has to be on most of the time. 3) No option for internal card arrangement, i.e. external box required which ties up a serial port. 4) Need more software -- i.e. articles and sources!" --1220

"Overall (global) filter lines, e.g. -(category: sports) etc., needed because lines are often too short to handle both what you want and what you don't want." --1225

"I think the aspect which most needs improvement is the way in which articles are maintained. There should be an easy way to mark certain articles to keep, and then delete all others according to age. Thus, if a certain article has not been marked and is over five days old for example, it should be automatically deleted. This avoids having to manually delete all articles even if I don't get a chance to read them." --1227

"Software: I have definite problems with the filter when on the radio system. Two phrases in my filter do not appear to be working properly: 'Boston Edison' and 'square danc*'. According to the CommInS User Manual page 27, Section 4, third paragraph: ...'To indicate that the words "supreme" and "court" must appear consecutively as a phrase, simply put them in quotes: "Supreme Court"...' It doesn't work for me. I would like to see this feature incorporated in the remote system. Hardware: Fine -- just fine." --1229

"Receive too many duplicate articles particularly if I want sports articles. Need a way to let system run while using other software." --1233

"Lack of background capability." --1234

"Hardware: I get nervous leaving a hard disk machine on when no one is home. Can you devise an external box, maybe with a 1-2 MB RAM disk, to run CommInS at these times? Software: Priority 1, you need a graceful recovery from 'printer fault error---' or 'disk full error---'. Priority 2, global filters, e.g., (category = -sports). Priority 3, background printing, even on IBM's newer printer's such as Proprinter. Priority 4, faster display of first screen while loading 100+ line articles. Priority 5, cut down on duplicates. E.g., save the serial numbers of articles deleted in the past 24 hours. Screen out re-capture of these." --1235

"Text filter is not as good as it could be. A nice feature would be added intelligence. This would allow the user by typing 'Ford, auto' to get all articles relating to Ford automobile and Ford motor company for example. It would remove automatically all unrelated articles. Thus, first word would be the key (in this case 'Ford') and second word or maybe a phrase would the staring password. Therefore, user would not have to use category or subject keys. With present filter some articles are caught twice even if the filter is restricted. With intelligent filter this would not occur." --1243

"Redundant information. When I recall articles I see too many that are either exactly the same or close to the same. It also takes too long to weed out the articles you don't need to see -- partly because it is more awkward to scan through CommInS than a newspaper -- even though CommInS is filtered personally for me." --1244

"I do not know how to think about this question because my use is extensive rather than intensive. I would prefer a lot of things done tolerably than a few superbly." --1248

"Reviewing what's been stated takes such a long time -- more time than I can spare at this particular time. For the moment, I am too busy to do much with CommInS -- after the New Year I expect to be able to spend more time with it." --1253

"One particular thing that I don't like is that when you are done reading an article and the summary reappears, you are back at the beginning of the summary rather than at the point where the article was. This means that when I'm browsing through the summaries and read an article, I have to find the point where the article was after I'm done. I also think that the user interface needs improvement. Better use of the function keys, rather than that ALT combination keys might be helpful." --1256

"Let me begin by saying that I continue to enjoy using the CIS program, and I find that many of the features you have provided enhance considerably the usefulness of your system. However, I do have some suggestions for additional improvements which might also be advantageous for your targeted users.

Hardware: The receiver, although not much to concern oneself about in normal day to day use, has already caused me one or two problems. The first difficulty that I encountered was during the initial installation. On that occasion as well as the two times that I have disconnected the device for one reason or another, I observed sparks. I realize that this is most

likely due to either plugging or unplugging the power cord and the connection to the computer in reverse order, but perhaps an on-off switch would make things simpler for the user as well as instill some initial confidence in your equipment. I must admit that I was a bit hesitant about connecting a device to my own computer that had just sparked so vigorously. While we're berating the receiver, I must also send off a few insults directed at the signal strength meter. I'm not proud to admit that this small device recently outwitted me. I changed the position of my computer and receiver and when all was done the meter registered a level comparable to what I had previously noted. For most of the day, though, the number of articles that I had received was low, but I merely attributed it to the time of day or to the day of the week. I persisted to wonder about this so later in the day I checked the number of unframed packets and found that the number was very high and climbing. Believing that the signal strength was sufficient to rule out a reception problem, I started to seek out other causes only to later discover that the meter had mislead me. One recommendation to prevent such required troubleshooting might be to have the program monitor the number of unframed packets. When the number exceeds a certain limit in a given amount of time the program would then send the unwary user a message to check the reception.

Software: The main difficulty that I have in working with the program is that there is no way that I know of to organize the filter in such a way that I can efficiently keep track of its contents. The way I have things now, which is by no means ideal, is to have the first three or four high priority items at the top of the list; all others in alphabetical order. To keep track of my selections better it would help me to have either a numbering system for prioritizing (to free up the ordering for organization), or to be able to use a directory structure for organization, with some system to prioritize within each directory. I have only had the system for approximately two months, and there are most likely some features that I am not yet familiar with, but the following are some picky complaints that you may have already resolved: 1) I would like to have some way of tuning off the cute little beep that occurs when I have reached the end of a file, etc. 2) When editing the filter window I often would prefer to have a command to edit an existing line or for inserting a blank new line rather than use 'Alt-I' to copy a line that must be subsequently re-edited. 3) While reading articles I may decide that I want to read a previous selection. As far as I have seen there is no command analogous to 'Alt-N' that allows this form the Article Window. 4) So far, I have the most difficulties with interfacing your program with my printer which is a NEC pinwriter P6. I have used both the -p flag upon start up as well as the 'Alt-G' command from the Options Window to switch to non-IBM Graphics printer. One of the difficulties has to do with halting my print request when I have asked for a printout without having previously changed the printer switch. In this case, I must reboot the computer and restart with the -r option to regain control of the program. This has not occurred more than a couple of times, however, so I'm not sure whether it is my fault or the program's at present. Another difficulty that I have only encountered recently is that exiting from the CIS program after having used the -p option upon starting up has the unfortunate consequence of sending everything that appears on my screen to the printer. Only using the 'Cntrl-print screen' command in DOS halts this. 5) Occasionally, I send something off to the printer, leave the room, and upon returning find that I have received a few more articles. Then I end up wondering whether the program is finished printing and whether the message indicating that printing is finished has already been scrolled out of the message area. Since I do not want to cancel the job by pressing any key I must patiently wait until the message does come up or, more frequently, until the printer is finished. One possible suggestion to remedy this problem might be to have a filter message window separate from a 'system' or 'status' message window. In this way incoming articles will not scroll any important messages from view. In spite of all the criticisms I have made, I enjoy using the system a great deal. It would, of course, be even more enticing if I could run the program as a background operation. Since I do not have the specific programs that you mentioned which would allow me to do this, my last suggestion for this month's report is that you consider offering a program like Desqview (or some other program that you devise yourselves) as a standard feature of the system." --1277

"The inferiority of physically reading articles and headlines on CommInS, compared with the same articles on the front page of the New York Times. I find I read more of an article, and get more out of them, on the physical NYT. A lot of this is presentation (fonts, pictures, etc.). I find it surprising how much difference this makes.

Physical NYT	CommInS
headlines in large print	Essentially meaningless headlines, hard to pick out
sub heads	none
Photos	none
Easy to scan a whole page	Slow, on a floppy system at least.

(10+articles)

No color,
but subtitles No color"

--1295

November 1987

Question
 # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
68	0.00	20.00	180.00	600.00	1440.00	360.58
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
67	0.00	5.00	10.00	15.00	120.00	13.15
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
67	0.00	5.00	10.00	10.00	45.00	9.78
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
67	0.00	5.00	7.00	15.00	40.00	9.88
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
65	0.00	0.00	0.00	2.00	10.00	1.55
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
70	0.00	25.00	50.00	100.00	3000.00	132.46
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
72	0.00	10.00	24.00	45.00	400.00	45.37
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
72	0.00	5.00	10.00	20.00	100.00	17.83
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
72	0.00	2.00	5.00	10.00	50.00	8.38
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
70	0.00	0.00	0.00	2.00	30.00	1.38
55 I find that the information available is of: little interest--great interest						
72	1.00	6.00	7.00	8.00	30.00	7.40
70 I find the system has: no value to me--some--great value to me						
72	0.00	6.00	7.00	8.00	10.00	7.08
81 I sit at the keyboard and use the Boston CommInS system __ minutes/day on average.						
67	0.00	8.00	20.00	40.00	180.00	26.99

93 My interest in the system is: decreasing--unchanged--increasing

72	0.00	5.00	5.00	6.00	10.00	5.72

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

48	0.00	0.00	0.00	2.00	15.00	2.13

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

48	0.00	0.00	0.00	1.00	10.00	1.29

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

49	0.00	0.00	0.00	1.00	10.00	.88

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

47	0.00	0.00	0.00	0.00	10.00	.42

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

65	0.00	0.00	0.00	3.00	60.00	3.75

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

52	0.00	0.00	0.00	2.00	15.00	2.12

181 I use the 2-way system __ sessions/week.

51	0.00	0.00	0.00	1.00	4.00	.80

182 Each 2-way session lasts about __ minutes.

38	0.00	0.00	5.00	10.00	45.00	9.00

212 I own and use a modem with the CommInS system: yes[1] no[0]

63	0.00	0.00	0.00	1.00	1.00	.38

246 I have access to a Mac II computer and would like to be able to run the CommInS system on an "IBM-compatible co-processor" card: no[0]--yes[10]

71	0.00	0.00	0.00	0.00	10.00	1.13

247 At my home or my office, I subscribe to a commercial service called CitiNet (tm): no[0] yes[1]

73	0.00	0.00	0.00	0.00	1.00	.16

248 I use the CommInS system in my: home[0] office[1]

74	0.00	0.00	0.00	.50	1.00	.24

249 At his location, I have cable TV installed: no[0] yes[1]

75	0.00	0.00	0.00	1.00	1.00	.39

250 I subscribe to __ cable TV channels

29	0.00	0.00	10.00	32.00	60.00	19.93

251 At *tthis* [sic] location, I subscribe to an "all news" cable TV station: no[0] yes[1]

70	0.00	0.00	0.00	1.00	1.00	.31

252 At this location, I have had some form of cable TV access installed for __ months

59	0.00	0.00	0.00	24.00	80.00	10.58

253 At this location, I spend about $__ per month for the cable TV features identified above.

58	0.00	0.00	0.00	12.50	50.00	8.64

254 For an average month, I spend __ minutes completing and returning the Questionnaire

75	2.00	5.00	10.00	15.00	45.00	13.03

255 I think that an ideal interval between regular Questionnaires would be: 0--10 [months]

75	0.00	1.00	2.00	3.00	10.00	2.29

256 I would be willing to pay $__ per month for the privilege of not filling out a Questionnaire in the future.

62	0.00	0.00	0.00	2.00	15.00	2.02

257 I will be in the Boston area during January--the "Independent Activities Period" at MIT--and want to continue in the CommInS experiment: no[0] yes[1]

75	0.00	1.00	1.00	1.00	1.00	.97

258 I will be in the Boston area after January--the "Spring Semester" at MIT--and want to continue in the CommInS experiment: no[0] yes[1]

74	0.00	1.00	1.00	1.00	1.00	.97

259 At the present time, I plan to continue in the Boston CommInS experiment when the monthly users fee charges begin in March 1988: no[0] yes[1]

52	0.00	.50	1.00	1.00	1.00	.74

As we modify the PC software that captures the signal from your receiver, what features would you like us to add? Please be as specific as possible.

"Program description files so the software is automatically recognized by Desqview or windows. The ability to set the filter for only today's information." --1005

"1) An article may be 'caught' in more than one filter line. It would be better if the <alt> K <alt> E command to delete all articles on a filter line did not also delete that article on some other filter line. 2) Built in 'Double Dos' program to permit receivers and CIS to run in background while computer is running another application." --1009

"I am very happy with the software, so I don't have any burning suggestions for improving it. It would however, be nice to have a faster system. The delay in calling up an article and scrolling through it can be annoying. This is probably a function of the slowness of the 8088 chip." --1011

"1) Please eliminate repeat articles and other clutter. 2) Please provide an 'undelete' feature to recapture articles erased by accident. 3) A way to read articles found by modem onto disk." --1025

"I have previously written about general features desirable, such as connection to other public databases, etc." --1041

"Add global filters -- e.g. last day only -- no sports, etc. Keep track of articles read over separate invocations of program. Fix multiple copy of same article (duplicate) problem. Provide stock quotes in a format compatible with spread sheets -- or provide a stock quote service -- e.g. via modem provide quotes for a bit of companies. Provide crossword puzzle." --1043

"Send articles to my laserwriter 1) need to access my own BAT to format the article. Filing system: save article in directory of my choosing, version which runs under OS/Z. Version which runs under microsoft windows." --1065

"1) Put the total number of captured articles at the top. 2) Have one automatic key that will jump to the next filled line to

save the effort of using the arrow key--minor. but nice. 3) How do I find out which file in DOS contains a particular article? 4) Full background running in DOS 3.2! 5) Option to store the most recent version of a story. 6) Option to capture/store incoming stories by date and time! Save a lot of disk space--this would be very nice." --1068

"1) Receive on ports 3 and 4 to eliminate my switch-box. 2) Provide a read-only mode with no printing (for access control for the NYT license agreement) so several users on a network can browse received data. 3) Provide a 1 or 2 line abstract of each article caught in last -n- hours and place all of these on a summary like menu from which one could delete, read, or print. 4) Split window for article and summary." --1070

"It seems that I have answered this question before. 1) Ability to store data from modem as a file. 2) Multi-line filters. 3) Ability 'to work in background'." --1072

"1) Color. 2) Printing in background with most printers. 3) Search/scan of articles on our disk. 4) Ability to organize filters into categories/levels, much as DOS directories/subdirectories--i.e. Financial: AT&T, Wall Street, Mutual funds, Silk Column. News Summaries: NYT, AP. 5) Within CIS -- ability to copy an article to another disk/directory name. 6) No modem connect, ability to save to disk." --1084

"I don't use the receiver -- only the modem. It is not likely that any new features would change this since that mode is not efficient enough to warrant my time (on a daily basis)." --1088

"I would like to see the major heading types of the articles as they are being broadcast in a window. If there is a breaking story, it would be interesting to know there is activity in that area so that filter line can be [adjusted] accordingly." --1092

"Easy handling of alternate filter sets. Forty-three line display of text for EGA systems. Information on using COM 3,4 with DOS 3.3, when hardware allows (lots of us use 2 com ports already, and 3.3 supports 4, but I'm not sure how. Recognition of duplicate articles." --1096

"1) Saving articles to disk (i.e., an option to rename the file). 2) Foster deleting of large numbers of files in one filter. Failing this. I would like a feature whereby I could work a filter for deleting, but the system would delay deleting the files until the screen saver feature was activated. I don't like waiting for 70-110 files to be deleted before I can view other filters." --1112

"I hate to keep on harping on the same subject, but I would like to see a nice Windows-like environment that would support the use of a mouse because it is a friendlier environment. One other thing I would like to see is a 2 to 3 article FIFO buffer in which the latest decoded non-filtered articles are placed. The summaries of the articles in that buffer should be accessible so that if I so happen to want to save one, then I can transfer that article to a more permanent buffer. I guess the motivation for that feature is the fact that I often wonder what articles are streaming by on the system that my filters aren't catching." --1116

"A facility to exit to DOS from within the program (without leaving the program). Ability to sort articles by subject. Ability to copy a group of articles to file." --1118

"Can't it be made mouse driven? I have a Microsoft Mouse on an XT. Can graphics be displayed?" --1121

"Not sure." --1127

"Can't think of any." --1130

"Instead of what I usually see, i.e., connected logging in, closing modem connection, re-establish connection, resubmit --; I would prefer: connected logging in, automatically and arbitrarily changing my mind and closing your connection, automatically resubmitting, sorry for my rude disconnection -- your back on. Also, a way to prevent repeats in a 24 hour period. This relates to the case where I read an article and delete it only to have it return. It could be implemented by checking a status toggle that says 'Should deletions be done at start of next session (Y or N)?' Flag articles, delete at next start up. This is better than just the not read/read flag." --1134

"An 'oops' button (undo), especially for accidental deletes." --1137

"Shell to DOS environment. (Wish we could extend broadcast range)." --1138

"For my purposes, it is just about right now. I receive the information I need readily." --1148

"Items caught by several filter lines are stored only once. This is, on the whole, a good thing but there are times when I delete an item after browsing one summary that I might have read more carefully if I realized that it had been caught by another. I'd like articles caught by second filter lines to be flagged somehow -- either in the summary or in the delete process. It would also be helpful to have a simple method to build up a print queue of disparate articles -- something like the 'tagging' process used in XTree, for example." --1152

"1) Editor service, where thoughtful, perhaps opinionated person edits and comments on the news/low in some specialized area and sends it our under a signature code. I recognize this 'violates' the principle of personalized filter lists, but it could complement it. 2) Better prevention of repeated stories. 3) Better headline service and auto-update. 4) Easy to use key i.e. 'more' key which automatically dials up and locates background (morgue-type) information about persons, issues, objects in the news. 5) Longer lines for more complicated filters. 6) Reprogrammable function keys." --1158

"The ability to use other computers, like the Apple IIe or GS, I think would be excellent." --1162

"Some kind of 'multi-tasking' that prevents lapses where the PC ignores the user. This is extremely frustrating for some users. 'Save article to file' command, that removes garbage, saves to file. Bugs: If started with no CIS_DIR.txt, and very large budget, disk fills up with articles. Then, when exiting, tries to write CIS_DIR.txt. Does not check for 'disk full'. Hangs, spinning disk infinitely. Sometimes 'remote mode' programs exits arbitrarily." --1163

"Ability to screen out articles (e.g. articles that match the filter). Ability to globally select articles based on date (e.g. only include today's and yesterday's). Longer history on modem service (e.g. one or two years)." --1165

"1) Time sharing (multitasking). 2) Quicker entrance and exit. 3) Non-IBM (Epson-compatible) printing in queue. 4) Metro Boston cultural event flag service. 5) Beep not just upon arrival but at intervals as well, to show certain material is on hand and waiting to be read." --1174

"De-couple the news-gatherer/filter part of the software from the retrieval/display part. I would like to have the gatherer/filter part running continuously in the background like the MS-DOS printer spooler, or under some environment such as DESQview. It should be possible to invoke the retrieval/display part independently of whether the filter/gatherer is running or not. I have occasional problems with radio reception (aluminum siding, unfortunately combined with weather conditions). It would be useful to have an optional low-key beeping every five minutes or so, to flag a no-packets situation. Some way of disabling this feature before planned shutdowns would be needed to prevent false alarms, though. As for the filter itself, being able to use a longer line for the filter section would be a simple, but very useful improvement especially for the dialup retrieval which uses half the filter line by itself. Some method of avoiding/reducing the double/triple/quadruple 'catch' of the identical news article would be nice, but it's not clear how to implement it. As a related item, it's not clear what algorithm or method the database purger uses when selection which articles to delete to make room for more. Some filter lines I would like to accumulate articles indefinitely, and others I would like to purge more severely. The 'budget' or quota doesn't seem to behave completely predictably." --1178

"Why don't you let us know what you are planning for the overall future of the CommInS -- even if the future is not certain? Comments on receiving articles via radio: 1) Set a special budget for some lines that will limit the number of articles kept that match the line but also update the articles when 'newer' articles are received. 2) Re-write the data query. 3) Search only the first part of the article to look for 'matches' with the filter. 4) Re-broadcast some summaries more frequently than most articles. 5) Have program run in background while receiving articles. 6) Eliminate catching 'duplicate' articles." --1181

"Ability to browse articles not selected by filter lines without capturing them." --1188

"1) I'd like a command which saves a snapshot of the diagnostic window statistics to a file on disk -- this would make

filling out the monthly questionnaire more convenient. 2) I'd like the ability to mark specific items to be written to a file on disk, either as complete articles or as summaries. 3) I'd like to see CommInS as a true Windows application, especially for it to take advantage of the Windows Dynamic Data Exchange facility to allow real-time linkages to other programs. For example, I'd like to be able to set up the filter so that when a given category of article is received, CommInS can invoke a text-oriented database application, transfer the file to it, and leave a message alerting the user." --1195

"Only ones that I have previously mentioned, i.e., to be able to save aside some articles in a 'save' category (moved from other categories) so you can globally delete large unwanted lists in one swoop without loosing one or two things you want to save for a while to read later. And, to be able to print while continuing to work, and to continue to work while articles are coming in." --1206

"Better manual with more examples. Easy way to use modem if your modem is not 100% Hayes compatible. Easy ways to exit the system and return. Better way for adding items to one's menu." --1207

"Longer filter lines. I like to use some complex title and subject descriptions that only just barely fit onto the available line. A longer line would be very useful. Related to this, perhaps it would be useful to 'name' a given filter line, so that only its name rather than the literal description is seen in the filter window. This makes it less intimidating to use for other family members. A filter line library. Some place to store successful (well-specified) filter lines that are not currently in use. E.g. I had a great one for N.H.L. League standings, but discarded it at the end of the hockey season so it didn't clutter the filter window. Wish I had stored it somewhere. Better information for each article in the summary window. The title would be useful, especially for identifying digests. Also, stopping the summary at the first '.' is not a good idea. Many cryptic summaries result. I would prefer to see the first four lines of all articles in the window. Ramdisk Utility. I use a CHOK system with two floppies and a RAM disk as C:. My auto exec copies files from B: to C:, runs CIS, then copies C: to B:. Using diskcopy for this is fast, but it has prompts for the user to answer, so I need to hang around while it runs. Using copy *.* lets it run unattended, but it is very slow in copying. It would be great if I could set up the CommInS to automatically do the diskcopy for the time it makes up, without user prompts." --1208

"Intersection of topics -- what articles met more than two lines of keywords. Exit from reading an article and save to a new DOS filename. Update the whole filter with one call to the host. Make use of all function keys for standard functions: delete, print, kill, rename and save, change filter line." --1209

"Revise/Modify time capture menu in NY Times access. Make sure we can disconnect properly from NY Times." --1210

"I have detailed my thoughts re-intuitive key assignments in a prior letter. In summary, more use of the <return> key for article access at the various 'levels' is preferable to the <alt> <R> combination; similarly, greater use of the <del> or <(arrow)> keep rather than <alt> <D> would be preferred. I do, however, appreciate the confirmation loop feedback; perhaps <del> followed by <return> for affirmation would be useful combination (this illustrates the 'level' usage of <return> I previously notes. As I have never gotten my IBM PC to print articles onto the printer (using the CommInS software) perhaps that area could be examined." --1212

"1) Support for expanded memory. 2) Support for extended memory. 3) Longer filter lines. 4) Download capability from the remote database. 5) Add a list of keywords to each article that can be searched by filters. This will permit better screening of articles. 6) Have revisions or updates of articles replace earlier versions that were captured. 7) Assign each article a number so it won't get captured twice. If a given article number has already been captured, the second time it comes around it won't be caught. 8) Allow the user to selectively turn on and off individual filter lines. 9) Allow the user to maintain multiple sets of filters and article databases. 10) Allow the user to set global filters that affect all filter lines. 11) Support the EGA 43-line mode. 12) Better support for color monitors." --1214

"System works adequately now." --1216

"1) Windows: allow windows for each of the separate views of CommInS -- i.e., summaries, text, diagnostics, etc. 2) Color: extensive use of color to enhance readability and highlight special text, etc. 3) Menus: an omnipresent set of pull-down menus (like Windows by Microsoft if not actually under Windows!). 4) Filter editing: capabilities should be enhanced--should have menus of all the different commands in the language. 5) Database: should be able to maintain a simple database of articles with simple search for text feature, search for subject, paper, etc. If too difficult, provide a way

to export into a commercial database. 6) Local searching: should be able to pinpoint text locally by typing in key words. Good luck with the re-coding." --1219

"1) Eliminate 'duplicate' articles, 'duplicate' means almost identical. 2) Help capture stats to answer first page of questionnaire re: articles caught and viewed. 3) Un-attended 'middle of night' update via modem. 4) Allow other DOS programs to run concurrently, i.e., memory resident." --1220

"I would like to see graphics included in the package." --1221

"Just bought a 1200 baud modem. I expect my use of the system to increase greatly; I get much more out of it. Would like access to other information services besides NY Times and AP: magazines (Time, Newsweek), Journals, etc." --1223

"1) Our cable system does not carry WERS. Hence, reception is a major problem. Will be moving to Cambridge in the spring, so maybe problem will go away. 2) Please add a global filter line (or several). 3) Un-do feature would also be useful--sometimes I delete a story too quickly. 4) Eliminate duplicate transmissions." --1225

"The ability to catch front page or newsbreaking stories would be nice. Also, the addition of graphics capabilities might be considered." --1227

"None, fix old ones." --1229

"Something to regulate duplicate articles, some articles are sent 10+ times. To be able to receive news yet use the computer for other software: text editing, Lotus, DBase, etc. Comic strips!" --1233

"1) Background operation under Word Star and other word processors. Word-processing is still a large block of time, and could easily double as running time for your system. 2) Power-off operation, e.g. at night or when I'm away. Store the articles to a RAM-disk, then upload to the main machine when it's on. 3) Easier for non-techies to use: global filters applying to many lines in the filter window, Lotus-like menu system, proper use of 'delete' key, function-key explanations across bottom of screen, eliminate duplicate/redundant/previously deleted articles, faster browsing of long articles. Don't load whole article, but only the first screen worth. 4) Background prints on something other than IBM's ancient 'graphics printer'. I have two other IBM printers, and your system won't work with them. 5) Rigidly-enforceable limits on the number of articles for any one filter line. I have need for only one weather forecast, ski report, Wall Street summary, etc. 6) Automatic time-out on the 'receiver off' feature, so it comes back on even when I forget to turn it back on." --1235

"Just adding color would be nice." --1241

"1) CIS background mode not just for printing articles but for capturing articles to the hard disk with the ability to specify how many are to be captured. 2) Encryption or packing of data in order to conserve hard disk space could be useful." --1243

"I use the system in place of a newspaper. My use is not finely tuned. Therefore I cannot answer your question precisely." --1248

"I would like to be able to filter AP and NYT articles and I would also like to have a better way of identifying duplicate articles. I would also like to have a DOS shell so I can leave the program temporarily without having to exit (saving to disk) and re-entering." --1256

December 1987

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	57	0.00	45.00	180.00	600.00	1440.00	339.04
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	54	0.00	3.00	10.00	12.00	120.00	13.62
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	54	0.00	2.00	6.00	10.00	60.00	9.36
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	53	0.00	3.00	7.00	10.00	30.00	8.89
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	51	0.00	0.00	0.00	2.00	20.00	1.79
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	58	0.00	30.00	60.00	200.00	800.00	116.11
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	58	0.00	10.00	30.00	50.00	400.00	51.59
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	58	0.00	5.00	10.00	25.00	250.00	21.48
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	58	0.00	2.00	5.00	10.00	100.00	9.16
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day	55	0.00	0.00	0.00	1.00	30.00	1.79
55 I find that the information available is of: little interest--great interest	60	2.00	6.00	7.00	8.00	10.00	7.03
70 I find the system has: no value to me--some--great value to me	61	1.00	6.00	7.00	8.00	10.00	6.90
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.	57	0.00	15.00	20.00	45.00	180.00	30.03

93 My interest in the system is: decreasing--unchanged--increasing

62	1.00	5.00	5.00	6.00	10.00	5.31

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

40	0.00	0.00	0.00	0.00	10.00	1.30

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

40	0.00	0.00	0.00	0.00	5.00	.83

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

40	0.00	0.00	0.00	0.00	9.00	.74

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

39	0.00	0.00	0.00	0.00	3.00	.22

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

51	0.00	0.00	0.00	0.00	40.00	2.03

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

41	0.00	0.00	0.00	2.00	30.00	2.07

181 I use the 2-way system __ sessions/week.

40	0.00	0.00	0.00	1.00	5.00	.65

182 Each 2-way session lasts about __ minutes.

31	0.00	0.00	5.00	10.00	60.00	9.52

212 I own and use a modem with the CommInS system: yes[1] no[0]

56	0.00	0.00	0.00	1.00	1.00	.48

261 I use the CommInS to read a daily news summary: not at all[0]--some[5]--daily[10]

64	0.00	3.00	6.00	8.00	10.00	5.77

262 I use the CommInS to read weather conditions and forecasts: not at all[0]--some[5]--daily[10]

63	0.00	0.00	2.00	5.00	10.00	3.22

263 I use the CommInS to gather information for decisions on personal investments: not at all[0]--some[5]--daily[10]

63	0.00	0.00	2.00	3.00	9.00	2.32

264 I use the CommInS to read reviews before choosing a movie to see: not at all[0]--some[5]--daily[10]

63	0.00	0.00	2.00	5.00	10.00	2.83

265 I use the CommInS to learn about musical concerts and schedules: not at all[0]--some[5]--daily[10]

62	0.00	0.00	0.00	2.00	9.00	1.13

266 I use the CommInS to learn about theatrical productions and schedules: not at all[0]--some[5]--daily[10]

62	0.00	0.00	0.00	1.00	9.00	.89

267 I use the CommInS to learn about public lectures and schedules: not at all[0]--some[5]--daily[10]

61	0.00	0.00	0.00	1.00	8.00	1.10

268 In preparation for voting in the recent elections, I used the system to gather information on different issues: not at all[0]--some[5]--daily[10]

62	0.00	0.00	2.00	5.00	10.00	2.95

269 In preparation for voting in the recent elections, I used the system to gather information on different candidates: not at all[0]--some[5]--daily[10]

62	0.00	0.00	2.00	5.00	10.00	2.69

270 I tell relatives and friends about information that I have learned from CommInS: not at all[0]--some[5]--daily[10]

63	0.00	5.00	7.00	8.00	10.00	6.32

271 In the past 12 months: I have used the system to gather information before making major purchases (e.g., over $500 value): not at all[0]--some[5]--a great deal[10]

64	0.00	0.00	0.00	3.00	8.00	1.66

272 In the past 12 months: I have used the system to gather information before making major purchases (e.g., purchase a house): not at all[0]--some[5]--a great deal[10]

64	0.00	0.00	0.00	2.00	9.00	1.61

273 In the past 12 months: I have used the system to gather information before making major personal decisions in my own life: not at all[0]--some[5]--a great deal[10]

64	0.00	0.00	0.00	2.00	8.00	1.53

In the last twelve months, have you used the system to gather and analyze information that has helped you make personal choices in your life, political choices at the polls, or professional decisions in your job or career? If so, how have you used the system for these purposes?

Has the system alerted you to new possibilities and influenced the decisions that you have made -- or just supplied you with interesting topics of conversation?

"It has not helped make any important decisions but it has supplied interesting conversations." --1005

"Not used for this. Information not appropriate for this purpose. NYT or AP is not Consumers Report, but that type of information would be valuable." --1009

"I can not think of any instances where the system has helped me make any of the choices or decisions mentioned. It has however, supplied me with some interesting topics of conversation. These topics have mostly been related to on going events that I have been able to follow. Two of these have been the Iditarod dog sled race and the first man to sail around the world by himself." --1011

"That's a hard question to answer. I use it the way I do a newspaper to gather lots of general information, but I do read hard news, financial information, etc., and I do read carefully. When current events and my personal decision making coincide, then the relevance is direct (e.g. recent stock market actions). But like a newspaper, I have very little choice over what is available when I look at it. Real research I do in the library." --1013

"1) Information on [illegible] sales, new issues. 2) Used it to follow politics and appear 'ahead' of pack at water cooler at work. 3) Considering software. Use it to monitor closely software developments. 4) Use it to monitor political instability in third world countries my family will visit. 5) Use it to monitor Union Carbide and other firms have invested in. 6) Information on airline safety." --1025

"I have used the system in two ways: 1) As researcher of information retrieval systems, I found the use of your system very helpful in learning about some interesting and imaginative techniques being developed in my field. 2) For my own personal need for the actual news stories, although there were a few stories of at least moderate interest that I located in this

way, the utility of the system for me was limited for several reasons: a) I have access to news databases by other means (e.g., DIALOG and ORBIT systems). b) I regularly browse several newspapers, including the NY Times, so that what I gain from Boston CommInS is usually marginal. c) Not being able to run the system regularly in a background mode left too many gaps to be able to rely on it and take advantage of its no-cost and other advantages." --1041

"I use the system like a newspaper with the exception of putting entries in filter to pick up 'hot' news. I read all commentary, political and international news. Typically, I delete an article as soon as I read it. I do not use the system for making decisions. The system keeps me up to date on news and also provides interesting topics of conversation." --1043

"The system has been of great interest to me. Have had little time to use it as I'm in law school. While on vacation I plan to use the system more often and will add query lines related to law." --1051

"I regard this system as one more mode of news desemination. It is much more efficient than other for some purposes: it finds things faster than I can in a newspaper, and the stories are more complete than what you hear on the T.V. and radio. I can't say that this system has made any dramatic changes in my life, but I am a little better informed." --1057

"No, just interesting topics of conversation and general news awareness." --1068

"Primarily it gives me organization of news events into categories so I can pick out what I want faster than in newspaper coverage in the NY Times I don't get in the Globe except in the Sunday NYT. Convenience in living room to read the news early in the morning without having to trudge through snow to end of driveway." --1070

"I like the science articles as these are somewhat related to my research. They provide a broad view of things that happens. Patent summaries are also interesting. Mostly, though, I use the system to read interesting articles that have no effect on career or personal decisions. I do not think the database contains enough information to influence major decisions. It is also not accessible in a convenient enough form. For example, there is no way to obtain precise information without reading entire articles." --1072

"I can't say that this system really has alerted me to new possibilities. Most of my information still comes from newspapers, magazines, radio, and TV. I still haven't found the equivalent of being able to flip rapidly through a magazine using this system." --1076

"We do not believe that the system has influenced us in major decisions any more than more conventional media. Being 'alerted to new possibilities' is difficult as one can only browse already defined pigeonholes/filters." --1084

"The system influences my career by appraising me of research trends in my general field. I use filters for various broad and specific aspects of my field -- the types of articles I receive inform me as to what areas are being pursued and which are advancing. This helps me to form a perspective for my lectures and in certain instances has given me direction for my own projects." --1088

"Basically it has allowed me to target areas of interest and stay abreast of developments in those areas. I can catch up on the news when I want -- not necessarily better or easier, just different. I probably have had as much conversation about the system as I have had about news from it. I have probably made some decisions differently because I knew I could rely upon continuous access to certain information -- i.e. could plan assuming better knowledge being available." --1096

"To use the system for real decisio.. making would require a good hour or two per day. I really don't have that much time to spend on the system to use it in that way. I've used the system to gather information about general and specific things mostly so that I would miss nothing of importance in general news and in topics related to my field of study. In addition, I've used the system to follow certain specific topics in the news which, for one reason or another, caught my interest. For example, I saw a report on 60 Minutes about sudden acceleration problems in Audi 5000 cars. After this report, I added a line in my filter to catch relevant articles and have followed the story ever since. I did this because the 'facts' presented on 60 Minutes needed clarification. The information I gathered with CommInS has served the purpose well." --1098

"The biggest impact that the system has had on my life is that it has made me more informed. I have found that it enables me to be more conversant on current events topics. While in the past I might have said very little about current events, I

now tend to be the person who is most familiar with current events. The features on the presidential candidates will certainly help me in the upcoming primaries. I think the system has not had any overt influence on my decisions, but it has influenced me because I am now more informed about a broad area of topics. Being at MIT can tend to restrict interests to more technical areas; the CommInS system provides a way for me to insure that I remain aware of the events occurring around me." --1109

"Being a non-voting grad student, there are few personal choices which BCIS could influence. I have been reading movie reviews, and the job prospects column to become better informed about the marketplace for jobs. This will probably affect my decision about my career moves. I also filter for articles which pertain to my field of specialization, but they are very rare (two in the last ten months). Soon I plan to filter articles on the presidential candidates views. This will undoubtedly influence my choice at the polls next November. BCIS has changed the way I view news -- I can get news, rather than being fed it. This is probably the major change that BCIS has wrought in my thinking. I treat BCIS as a newspaper and as an almanac of recent events. BCIS has alerted me to new possibilities, but probably no more than reading the paper would have. I don't think of BCIS as a toy -- which 'interesting topics of conversation' suggests. It also has not had a profound effect on the way in which I live. But now that I have it, it will be tough to give it up." --1112

"I think that CIS has mostly supplied me with interesting topics of conversation more than anything else, e.g., the stock market crash. The timeliness of the information provided by CIS is its major value to me. I would hear or read about most of the information provided by CIS -- it is just a matter of whether I learn about the information today the same day the event occurred or in tomorrow's paper. CIS has not helped me to make major personal decisions in my life because I already am flooded by many information sources (I'm an MIT student) and I am not at a stage in my life when I have to make major personal decisions. I am not going to buy a home, make a major job change, or switch my opinion on the current presidential hopefuls in the near future." --1116

"I use the system to gather information on books, movies and plays, as well as products. I definitely decide what books to read or movies to see based on what I read on the system. While I certainly read all the current news as well, I would be less likely to make a decision on an issue or a politician based on what I've read here. I have been made aware of various products I would otherwise have not known about and have made purchasing decisions based on this information." --1118

"I use it as a news source and as a source of information on particular professional interests. But I have not used it for any of the listed possibilities." --1121

"I haven't used it to its fullest. It has been a source of interesting and sometimes useful information, but not of vital information." --1127

"We use the system mainly to keep on top of new technology and the companies that create it. It's important for consultants to have that information fast. We also use it for the fun purposes of movies and recipes." --1130

"It helped me research the causes of the October crash so that I was able to, in retrospect, see why I should have sold sooner." --1134

"I don't recall ever using explicitly CommInS information (to the exception of other sources) in any personal decisions; purchasing, political, or financial. CommInS has, however, caught a few important articles of professional/academic interest to me that I might otherwise have missed in print. Thus, CommInS's utility for me has been on neither end of the spectrum you propose, but rather its usefulness has been as an aid in dealing with the large amount of information available to me. Without friends, colleagues, and (in the future) systems like CommInS, it will be impossible for people to process and filter out relevant information from the flood of available sources." --1137

"I have used the system to gather and analyze information pertaining to stocks, consumer goods and attitudes in health awareness. The system has alerted me to new possibilities and given me many more topics of conversation." --1138

"Neither of the above. The information I receive directs me to material not adequately covered in the media, which I then pursue on my own. For me it is a research tool, which I use in pursuit of two major interests about which I write and speak a great deal: 1) International affairs and security policy; 2) the filtering effect of the media, and the nature of the ideological system generally." --1148

"Basically, I've used CommInS as an electronic newspaper. The only way in which I've found it more useful than a newspaper is in catching news items that I'd probably miss otherwise. For example we've lived in Finland, and we love a 'Finland' filter line. We are mormons, and we have a 'mormon' filter line. This basic feature of having a filter line is the best thing about CIS (plus no newspaper mess)." --1160

"The system has given me early indication of matters of professional interest but has not played a role in decisions." --1152

"I read newspapers as well, so very little of what I read is unique. Not having any money to invest also simplifies my life and reduces me need for investment advice." --1158

"I cannot say that the system has directly influenced any decisions that I have made. It has informed me about products/movies that I might buy/see. It has provided me with valuable information that I have used in my research and consulting." --1165

"[Helped make decisions] -- no. [Supplied interesting topics of conversation] -- yes." --1171

"While I cannot claim the system has inspired major life decisions, it has effectively rekindled and sustained some old interests that mean a lot to me, and appears to have sparked some new interests as well. This goes far beyond merely interesting conversation material. I've never felt better informed." --1174

"I have an eye disease that is making it increasingly difficult to read newspapers but I can read the computer screen. I am relying more and more on CommInS for the full range of information I used to get form reading several newspapers everyday. Your question is impossible to answer. How do I know how reading the news affects my actions. I am better informed about local news than I used to be and have attended several meetings I have read about in the 'Massachusetts Daybook'. I use the system to keep track of several topics that have to do with my job. This has been helpful. As far as financial information is concerned it would be nice to have another news source e.g., The Wall Street Journal. I am more interested in getting more hard news than community events lists. The system has gotten me interested in exploring the entire range of possibilities of getting information via different types of computer systems. I am relying on the system as my major source of 'written' news. The system has become very important to me. I would like to know what the future holds." --1181

"Mostly supplied me with topics of conversation though that is very important. In addition, it, like all news, affects my political perspectives." --1192

"I've used the system primarily for fairly mundane purposes -- mainly as a somewhat more convenient and efficient version of a resource I use regularly anyway -- the news media. I've used suitable filter lines to keep up on developments in areas of professional or personal interest, or just to satisfy some occasional random curiosity.

The impact of the system, or of information gained via the system, on major personal, political or professional choices has been negligible -- so much so, in fact, that the very question sees a little silly. The depth of the information carried in newspapers and wire services is grossly inadequate to determine any decision which really matters, though obviously it serves a function of alerting the reader to certain new issues as they arise. The impact on minor decisions, such as whether I want to go to a movie and if so which one, is also so small as to be indistinguishable from the general noise level. If the project has really revolutionary goals in mind, a system such as CommInS which is qualitatively fundamentally similar to its hard-copy cousins --e.g., the New York Times -- and simply offers somewhat greater efficiency at obtaining the same content, doesn't seem up to the task.

"You are always asking in the monthly questionnaire about certain potential additions to the CommInS system, but most or all of the suggested additions are already available on line in some format, albeit usually at non-trivial cost. I wonder what kind of answer you'd get if you asked the people at CompuServe what would happen if their service were free, or at least if it cost no more than local telephone service.

The system has a certain novelty value, of course, but before long everyone around understands what it is, and the novelty value has pretty much evaporated." --1195

"Yes. Mostly the system has been able to replace or supplement the newspaper and TV news on issues and candidates for the election and other social and political issues. The system itself has not altered my decision making in itself but simply helped in getting me this information in a more regular, controlled way through the filter ability, and in a more pleasant (fun) way, since I like using the computer. I now have a portable modem (Worldport 1200) that will make using the remote simpler (I use the program a lot while I'm watching TV or studying in the living room, because I get bored doing only one thing, and I look forward to using the remote more regularly from now on. I do not regard the system as a tool for making conversation, although I do think that I again replace the absorption of newspaper information with information from the program in as normal conversation about political, health and other issues. In sum, the program has not so much influenced my life as made it easier." --1206

"I cannot really say the system provides decision-making information for me. I am very concerned with politics in Washington and internationally and this is what I like about the system. I find the national news (on TV) and the newspapers (I read the Globe and the New York Times) often edit out stories to be of great interest to me. I like the retrieval (through the modem) because I can search full text for articles I may have missed on a topic -- I do not think it is just for conversation but crucial to being a better informed person." --1207

"Not really. I use it to read news, not make decisions." --1209

"No, supplies me with information. Best use is access to NY Times for specific information." --1210

"System usage during the last twelve months has provided me with news that I am able to factor into my professional and personal activities. However, I have not successfully used the system to isolate information about a specific issue of interest in order to make a decision. In the one instance where I tried, the filter proved ineffective. Because of current habits (which represent conscious change), I find I am resorting to the early morning TV news for my major information update. Although functional, I find I am not accessing CommInS routinely as I am keeping the system active on other tasks. I have ceased leaving the computer on twenty-four hours per day as my out-of-office travel has increased and analysis indicated that it was economically inefficient." --1212

"I have not used the system for any of the above topics. I only use it as a source of interesting news on specific topics." --1214

"I have used the system for news gathering only, and not in the context of any personal or professional decisions." --1216

"Have used the system to help gather/analyze information pertaining to financial investments. I have not used CommInS to make any other personal or professional decisions. I find that there are few topics which are served exceptionally well by CommInS, financial information being one of them -- mostly because of the timed nature of the news -- needs to be available ASAP. I think community news such as theater/movie/arts, etc. could be useful if it were better categorized and presented. As it is, it's easier to use the newspaper." --1219

"No. Receive Boston Globe and Wall Street Journal daily. These seem to influence me somewhat more. Also am overloaded with periodicals and T.V.! System use has been on a decline since have been using PC much less." --1220

"The system has basically provided me with useful information which I can use in my daily lifestyle. Most of the information I receive is of a very general nature (i.e. current events) and thus has not really affected any major decisions in my life." --1223

"Only the latter [interesting topics of conversation]." --1225

"No. This system has only supplied interesting topics of conversation." --1229

"Practical Personal Items (5%): Weather forecast -- for planning weekends especially ski reports, occasional movie reviews. Professional Specific Items (20%): Track news of my clients, competitors, lead companies in the industries I follow. Personal Interests (5%): Watch for any news about our town and neighboring towns, my wife's employer, my home town (where parents live), personal computers. Professional General Interests (60%): Keeping up with trends in banking, capital markets, mutual fund industry, insurance, etc.; keeping up with trends in economics. General News (10%): Iran Contra Hearings, Gorbachev, AIDS, etc." --1235

"I used the system to read reviews on movies and to keep informed about events and happenings in the MIT/Harvard community. Also, I used it to monitor foreign exchange rates and to stay informed on changes in the economy. It also supplied me with interesting topics of conversation (e.g. M. Rust on Red Square, Mikhail Gorbachev and the summit, etc.). I plan to use the system in the upcoming months of winter to monitor U.S. teams' progress at the Winter Olympic Games." --1243

"I don't read a newspaper very often CommInS has replaced that. I'm not sure it has any different impact than a paper has except saving time because of the filter and not having to page through ads. I can keep up to date on things I am interested in with more certainty and less effort." --1244

"So far, there has been no opportunity for any contribution to major decisions. I have enjoyed reading different articles on various subjects and am interested in news about different computer news items because I have invested in a computer company. Information on PS/2, OS/2 have filled in information that has been useful to me since we are competing with PS/2 and we are offering an OS/2 -- so it wasn't a major decision, but was certainly helpful." --1275

"As you can gather from the previous page, I have not had a chance to use the system very much this month. However, in general, the system provides me with an alternative way of staying up to date in my specific areas of interest as well as in greater depth than one can glean with radio or TV." --1277

"The system has had little effect in these ways, but more than zero." --1295

January 1988

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
52	0.00	60.00	250.00	480.00	1440.00	393.25
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
50	0.00	5.00	8.00	15.00	120.00	13.54
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
49	0.00	3.00	5.00	10.00	60.00	9.67
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
50	0.00	4.00	8.00	15.00	50.00	10.10
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
46	0.00	0.00	0.00	2.00	15.00	1.93
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
53	0.00	20.00	60.00	150.00	700.00	121.53
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
53	0.00	6.00	30.00	60.00	400.00	55.17
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
53	0.00	5.00	10.00	30.00	250.00	24.15
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
53	0.00	2.00	5.00	10.00	100.00	8.93
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
53	0.00	0.00	0.00	1.50	10.00	1.24
55 I find that the information available is of: little interest--great interest						
58	2.00	6.00	7.00	9.00	10.00	7.29
70 I find the system has: no value to me--some--great value to me						
58	3.00	6.00	7.00	8.00	10.00	7.14
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.						
53	0.00	10.00	20.00	30.00	180.00	26.22

93 My interest in the system is: decreasing--unchanged--increasing

58	2.00	5.00	5.00	6.00	10.00	5.60

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

37	0.00	0.00	0.00	2.00	10.00	1.59

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

35	0.00	0.00	0.00	0.00	5.00	.97

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

36	0.00	0.00	0.00	1.00	15.00	1.11

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

36	0.00	0.00	0.00	0.00	5.00	.47

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

49	0.00	0.00	0.00	3.00	40.00	2.84

161 I run the system with a RAM disK: never--sometimes--always

61	0.00	0.00	0.00	5.00	10.00	2.64

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

40	0.00	0.00	0.00	1.00	15.00	2.08

181 I use the 2-way system __ sessions/week.

40	0.00	0.00	0.00	1.00	4.00	.74

182 Each 2-way session lasts about __ minutes.

32	0.00	0.00	5.00	10.00	60.00	8.81

212 I own and use a modem with the CommInS system: yes[1] no[0]

57	0.00	0.00	0.00	1.00	1.00	.47

274 Each week, I print about __ articles

46	0.00	0.00	1.00	5.00	40.00	4.36

275 and save about __ articles to another directory for later use.

41	0.00	0.00	0.00	1.00	10.00	2.00

276 I own and use MS-WIndows with some software: no[0] yes[1]

52	0.00	0.00	0.00	0.00	1.00	.27

277 I plan to buy and use either MS-WIndows or the OS/2 oeprating system within 6 months: no[0]--maybe[5]--yes[10]

57	0.00	0.00	2.00	7.00	10.00	3.23

278 I own and use a color monitor with some software: no[0] yes[1]

57	0.00	0.00	1.00	1.00	1.00	.54

279 I would like the CommInS program to display information in different colors: no[0]--maybe[5]--yes[10]

61	0.00	1.00	6.00	10.00	10.00	5.69

280 I own and use a mouse with some software: no[0] yes[1]

60	0.00	0.00	0.00	1.00	1.00	.50

281 I would like to use a mouse with the CommInS software: no[0]--maybe[5]--yes[10]

60	0.00	0.00	5.00	9.00	10.00	5.02

282 I would like the CommInS software to allow access to COM ports 3 & 4: no[0]--maybe[5]--yes[10]

59	0.00	1.00	5.00	9.00	10.00	5.31

283 I would like the software to allow an exit to DOS without leaving the program: no[0]--maybe[5]--yes[10]

61	0.00	8.00	10.00	10.00	10.00	8.34

284 I would like the software to have an "Undelete" key for the last article deleted: no[0]--maybe[5]--yes[10]

61	0.00	6.00	10.00	10.00	10.00	7.70

285 With a single command at the end of a session, I would like to be able to delete all of the articles that I have marked for deletion: no[0]--maybe[5]--yes[10]

61	0.00	6.00	9.00	10.00	10.00	7.89

286 I would like to be able to toggle individual filter lines "on" and "off": no[0]--maybe[5]--yes[10]

60	0.00	5.00	8.00	10.00	10.00	7.50

287 I would like the software to have better features for controlling dates through the filter: no[0]--maybe[5]--yes[10]

60	0.00	5.00	8.00	10.00	10.00	7.72

288 I would like the software to allow longer filter lines (several lines long): no[0]--maybe[5]--yes[10]

61	0.00	5.00	8.00	10.00	10.00	7.25

289 *I would like to be able to group individual filter lines under global filter line(s):* no[0]--maybe[5]--yes[10]

58	0.00	5.00	8.00	10.00	10.00	7.67

290 I would like to be able to redefine the "key bindings" to reassign the same functions to different keys and function keys: no[0]--maybe[5]--yes[10]

59	0.00	3.00	5.00	9.00	10.00	5.88

I think these metropolitan areas represent the next best cities for CommInS to consider for commercial extension:

New York
Los Angeles
--1005

New Haven, CT (Yale)
San Francisco (Stanford, Berkeley)
--1006

Washington D.C.
New York City
--1009

NYC
Worcester
--1011

New York
Los Angeles
--1013

New York
San Francisco
--1025

New York
Washington D.C.
--1041

Boston
Providence
--1051

New York
Chicago
--1057

New York
San Francisco
--1065

Chicago
New Orleans
--1068

San Francisco
NC Research Triangle
--1070

unknown
--1072

New York
Los Angeles
--1075

New York
Los Angeles
--1076

Worcester
Lowell/Lawrence
--1084

NYC
--1088

New York
Los Angeles
--1096

LA
NYC
--1100

New York City
Albuquerque
--1106

New York
L.A.
--1109

San Francisco
New York
--1112

New York
San Francisco
--1116

New York
Chicago
--1118

New York
San Francisco
--1121

New York
Los Angeles
--1125

Berkeley
NYC
--1127

Boston
New York
--1130

Minneapolis
Chicago
--1134

Washington D.C.
New York
--1137

Fitchburg, MA
Nashua, NH
--1138

San Francisco
New York
--1165

Don't know
--1174

?
--1181

New York
Washington D.C.
--1192

Chicago
Washington D.C.
--1201

Washington D.C.
New York, NY
--1206

New York
Los Angeles
--1207

Washington
Toronto
--1208

Princeton
Austin
--1209

Washington D.C.
LA/Berkeley
--1210

New York
Los Angeles
--1214

New York City
San Francisco
--1216

New York
San Francisco
--1219

Locally: Amherst -- Northampton
Nationally: San Francisco, Philidelphia, Washington D.C.
NYC
--1158

Chicago
Dallas
--1163

Dallas
Santa Clara
--1220

New York
Washington D.C
--1223

New York
Washington
--1227

Chicago
New York
--1232

New York
Washington
San Francisco
--1235

New York City
Providence, RI
--1243

NYC
San Francisco
--1244

San Francisco
New York
--1265

New York
San Francisco and South
--1275

San Francisco
New York
--1277

New York
San Francisco
--1295

In the filter lines used for the broadcast system and the 2-way system, how would you like to access information on business an economics: by industry? by company name? by stock market symbols? by government agency? by author? by source publication? by date? by some combination of these methods? or by some other method(s)?

Please state the type of business information you would most like to receive via the system along with a good proposal for using filter lines. For example, would you most like to receive statistical information, summary stories as now found from time to time in the New York Times, or more detailed stories as found in the Wall Street Journal and/or other business press publications?

"I would like to be able to use all of the above with and, or, not qualifiers. I would want the more detailed information from the Wall Street Journal, primarily the statistical but also background information if possible." --1005

"I don't use the two way system, but I would like access through categories such as industry with cross reference to minor topics as stated above. As for the type of article, the Wall Street Journal format is preferred." --1006

"Industry, government agency, source publication and combination of these methods. Detailed stories." --1009

"The filter line is flexible and versatile enough to select any business needs that I may have. The deficiency that I find is in the publications broadcast. I would like to receive publications like the Wall Street Journal, Business Week, and Boston Business Magazine. It would be nice to be able to select certain stocks or Mutual Funds and select lines of text where they are included. It also might be helpful to people to be able to pull tables that could be read into a Lotus-type spreadsheet." --1011

"The more information, the better. NYT and WSJ would be of nearly equal value, but must be available in a timely manner. Keywords should be provided for as many different kinds of search as possible. I recommend some context sensitive keywords: 'stockname: XEROX' would match only references to XEROX stock, while 'XEROX' would continue to match all references to their photocopying process as well as the company's name." --1013

"1) Would like information on Union Carbide for example as a) Union Carbide+ b) UCARB stock market symbol important. 2) Want on-demand market quotes for given company, want latest news on [unknown word] company -- so any WSJ stories absolutely valuable. NYT absolutely useful, but not as valuable." --1025

"Actually, I am not particularly interested in business information for the most part. What's in NYT is usually enough for me." --1041

"Company name, stock market symbol. Assume present filter lines will work with WSJ allowing access to high level summaries as well as detailed stories." --1043

"Since I use the system for current events and information, the above questions are irrelevant for me." --1051

"We already get the stuff that appears in the Times. More useful would be the detailed summaries that appear, for example, in the WSJ in the first issue of the year. Also, time series data such as stock prices, electrical power production, etc. would be useful to many of us. I would like to see something like the EEI statistical Yearbook available and intergratable. This sort of stuff to be useful, would have to cover some period of time, and therefore would be extractable by industry, company and time." --1057

"Since I don't currently own stock the NYT business news is enough for me. I already index by industry and company name. When I owned stock I had a filter for those companies. The stock market symbol won't give enough indexing capability." --1065

"I'm not deeply involved in business and wouldn't use this application. I have a hard time giving you an answer to this -- I'm not qualified, sorry." --1068

"Company name, government agency and by date. It's ten years since I daily read the Wall Street Journal -- I'm out of date on hour by hour business and market news. Since my area is 3rd world development I'm interested in World Bank, IMF, and US AID but don't believe that's a good market to aim at -- except as an example of a specialty, narrow area. If there are enough of these, say 20 to 40, then we'd each pay premium prices like an industry news letter but i don't know the sources for the text (they are fed by forms). Sorry, no help here." --1070

"Access of business information should be by any of the methods listed. I could envision using information by industry or company name. I do not own stocks or follow the stock market. I would like to receive information on changes and developments at major companies and also in various industries." --1072

Obviously a combination of all of these would be nice (I'm not too sure of value of stock symbol). It might be nice to get summaries of Dun and Bradstreet reports on companies, but I think this is probably expensive since D&B charges alot for this service. Another possibility would be the reports filed with the Securities and Exchange commission (SEC form 101C for example). These are public documents which give alot of details on how companies are doing. Other government agencies have similar documents. A filter on this might include (government reports + company name) or this (+ agency name). (Another government document source might be [unknown word] but that's a major project in itself!)" --1076

"A combination of those methods of access should be available -- it should not be limited to only one. All could be useful. Would like to receive stock market quotes (other than just first part of alphabet) summary stories and detailed stories. Would like to have AP stories on modem 2-way system. Also don't think filter lines work correctly on 2-way system. Two words in quotes gives me garbage." --1084

"Business is a low-interest area for me. The information I need would be company specific within an industry (Nutrition/Food Manufacturing/Food Processing). I'd like corporate information (balance sheets, product-specific financial information) and the ability to retrieve any detailed stories over three or six month intervals. Government/regulatory information would also be important -- by agency and by specific functions within each agency (e.g. regulations of organic produce within the USDA)." --1088

"Stock Market symbol would be unambiguous. I would love to be able to draw on Business Week, Forbes, WSJ, etc. for articles mentioning companies. Industry is something best done by keywords -- else different people have different notions of what constitutes an industry. Source publication is useful for browsing, but less important. Dates should allow for a secondary sort, i.e. pick company by stock market symbol, and they restrict to date. For articles -- a good summary would need to be written -- not sure how that would be done." --1096

"Business information does not interest me. Economic information is fine. I prefer to see the detailed government statistics myself. The Business Conditions Digest is a source I used to follow. I always found it useful. Other than that, I don't know what to suggest." --1098

"No comments." --1100

"I would like to be able to access business and economic information by industry, company name, author, source, and date. Currently, I use keywords composed of the company name (e.g. IBM or Apple) and by industry keywords (e.g. computer). I would like computer industry information, like that from the Boston-based PC Week Magazine. In addition, I am interested in the detailed articles found in the Wall Street Journal." --1109

"Not being a big or even a small consumer of business news, I have no real feeling for the issues. I just don't know." --1112

"I would definitely like to see the more detailed business stories that appear in the Wall Street Journal. The way I would like these articles caught would be, in order of preference: 1) by company name or stock symbol, 2) industry groups, and 3) geographic location of the story. Since I own stock in certain companies being able to catch articles on those companies would be of the utmost value to me. Next, I would like to read articles about certain industry groups like the electronics industry because I want to keep track of possible investment opportunities and because I am an electrical engineer. Lastly, I'm tremendously interested in stories about the going-ons of the Pacific Rim countries, which have some of the most vibrant economies in the world. For that purpose, transmitting articles form The Asian Wall Street Journal would be great." --1116

"I would like to be able to access information on business by the company name or/and industry type. There should be a way to distinguish the filter lines for Summary vs. detailed stories." --1118

"I prefer brief summary business information by industry and by company name. I don't have a great deal of interest in much business news except for [unknown word] economic data and for computing industry data." --1121

"I'm not particularly interested in more business or economics information -- I find the current information quite sufficient. Wall Street Journal articles would be an added benefit, but I wouldn't consider them essential. My main problem is trying to keep the stock market reports off the system. For example, a filter line with IBM in it catches all the market price reports, but if I put ~"stock market" in it I may miss other articles on IBM that I do want. Thus, some "source" or "type" designator for price quotes would be useful to see them apart from real articles and summaries." --1126

"Depends on purpose. For me, it would be stock research. Therefore, access by company name and stock symbol is best. Access to stats and charts and detailed stories a la the WSJ is also perfect. Great idea." --1127

"Summary stories are just that; what this country needs are fewer stories and more non-fiction. Non-fiction may not be new to those who live it but the information is new/news to the rest of us. We seek it first by subject; then, if some name is associated with it for a while (like 'the Brady Report' or 'the Crash') we try the names. Most companies have no stock market symbol and the authors who write about their activities vary -- many are free-lancing in whatever publication will offer them space. Business subjects include patents, contracts, tax matters, mergers and acquisitions, law, labor, regulations, incentives, trade opportunities, etc., not Lee Iococa, Ivan Boesky, or IBM. Just an opinion." --1134

"I would prefer filtering by industry and by publication. I'm less interested in stock information than in strategic/policy information. That's why a name-specific filter (the "IBM" or "DEC") wouldn't be as useful for me as an 'info-processing industry' heading. . .

To try and make up for my spotty record on the surveys, I'll spend a few minutes relating some of my current attitudes towards the system. Recently, I have been more interested in using the system. With a few suggestions from a friend and fellow participant, I rewrote my filters and made them a bit more specific. The new filters I have are more selective than my old filter used to be, but there continues to be no way to keep from receiving a large number of stories of limited interest to me.

The single most bothersome aspect of using CIS for keeping myself informed is the amount of time required for bookkeeping/administration of the system. I have found that the majority of the time I spend sitting at the keyboard is devoted to throwing away old, duplicate, or uninteresting stories. The process of cleaning out the filter makes the summary scanning process much slower that I would like it to be. If I always went through the filter and read everything I want to read, I could always end my sessions with Alt-K and delete all the articles from the bottom line, but sometime[illegible] to save a few stories to read later, and this technique won't work unless I want to read all of the stories in one sitting.

This last week, before I read your new questionnaire, I said to myself, 'Wouldn't it be nice if I could mark stories for deletion (presumably an action which would be much faster than actually deleting stories) and then, when I'm ready to get up and leave the system, I could hit a 'delete all marked stories' key, to save the time-consuming delete process for when I'm not at the computer.' I was glad to see the question about this function on the survey. I hope that your other subjects agree with me that this would be a very useful function.

I remember a recent survey mentioning that there had been some change in the way CIS treats repeated stories or updates of old stories. . . I still find myself having to delete several versions of a single story occasionally. I sometimes delete a story shortly after it has arrived, then come back late to find that its retransmitted partner has been captured. This is a nice feature when I accidentally delete a story, but more often it is a pain. (Besides, an 'undelete' function might make this doubling up unnecessary.)

I don't know if you have been doing this, but I suggest that you contact a number of subjects and ask to look over their shoulders while they operate the system. You would be able to see the habits people have formed, and they would be able to tell you about the gripes they have about the system while they're using it. Such a method might be potentially quite valuable to you and the sponsors. . .they type of data you get from the surveys is useful, but not quite of the same character as what you would get from some anthropological-style participant observation." --1137

"I don't access this information." --1148

"Access by company name is first priority -- others would be helpful but not essential. Detailed WSJ level is essential. Columns like WSJ 'Heard in the Street' and market summary." --1152

"Brattle Research/John Clypinger has developed some Mac software for doing models and AI on eco-industry information services. You might want to call his company and explore a joint project. Dow Jones knows about him. More graphics! Enough text already." --1158

"All your methods are useful...my ranking: 1) By company: give me a detailed recent history of company X Wall Street Journal style. 2) By industry: who are the hot companies in market Y (later, maybe, I can get profiles on them). 3) By author: what has my favorite economic prophet been saying lately. 4) By date, stock symbol, government agency are not as important. As for type of information, WSJ style, fact-filled articles for business professionals are preferable to 'color' or introductory articles aimed at lay people. A filter mechanism like the current one "(industry: oil)(company, shell)" would be fine. The news is more important than the software." --1163

"I currently use the system to track several companies by name through the NY Times and AP. I would like to also access companies by name from the WSJ and from several other sources (i.e. Business Week, Computer World) I am most interested in background articles so that company name and topic are adequate access methods." --1165

"I would be content to have stock and mutual fund quotes available, accessed by company name or market symbol. These could be saved in a 'sub-filter' (special file). Along with current quotes, information such as change from previous day's close, would be useful." --1174

"The more flexibility available in accessing information the better. It is difficult to anticipate what will actually work the best. Given that I would say that I am most interested in accessing information by topic or industry (e.g., computer industry, solid waste disposal, economics). I would like to also find information on specific companies. I am not so interested in stock quotes, but obviously the more information available the better.

Business Information Desired: I am most interested in detailed general information. This would include information such as is found in the NYT and to a much great extent in the WSJ (the front page, editorial pages, fron of second section). Filter lines would select the WSJ articles by their location in the paper. Other filter lines would identify specific columns -- 'Heard on the Street'. This could be done for other publications. In addition filter lines would catch stories in specific subject areas. I don't see CommInS as replacing expensive data services such as the WSJ News Retrieval and CompuServe as a source of statistical and business information unless you are going to charge a large amount for CommInS in which case I will not be able to afford it. What are you proposing?" --1181

"I would like to be able to use all of the methods you mentioned above, as well as by Sic, Fortune 500 number, number of employees, revenues, and other codes stored by leading data base companies like D&B. I would like to use a filter line [i.e. (fortune# le 100)(type:wsj)] which would collect all stories mentioning the Fortune 100 companies #1 to #100 in the Wall Street Journal." --1192

"I think it would be great to be able to access information in a variety of ways, including all those suggested above. I I had to choose the few most useful to me, they would be the following: by industry, company name, and stock market symbol. Summary stories would be best with the option of more detailed stories to follow. . ." --1201

"I'd like to access business by industry, company name and product (specific and generic). I'd like particularly to receive consumer information about products, product safety, new products, reviews of new products, FDA information on products. I'd like to receive stories from Wall Street Journal and other business press about all industries in addition to the NYT times articles." --1206

"Regional business journals are very helpful as are the major business journals like Fortune, Forbes. Would like to search by company name because private companies often do not have ticker symbols -- helpful if the system could do both also codes could be assigned for government agencies to save typing. Also, would like to search specific newspapers and journals by date, issue number, name, by author and by industry or sic codes." --1207

"**Type of Information:** 1) Summary stories, features, background pieces. 2) Announcements of newly released government stats (trade balance, inflation, etc.). 3) Financial information (exchange rates, stock market, etc.) not more than once daily: noon fix or close for example. 4) I have no use for hourly reports on the Nikkei index, London gold fixes, or the price of cheese or flour in 100 lb. sacks. However, I have yet to find a way to keep them out of the filter. 5) More foreign information (Canada, Europe, Asia).

Sources: The existing sources give me enough statistical information. More feature/summary/background articles would be useful. Leonard Silk's column in NYT is always in my filter. Other sources: WSJ, Business Week, The Economist (very good), The Financial Post (Canada).

Filtering: I have no interest in company/stock specific news, so such filtering is of no value to me. Industry or nation-specific sorting would be somewhat useful. Author, or column/feature name is useful, provided that there is a list of the features/authors available (as in the manual). The most important thing is to be able to separate simple statistical reports from features. Perhaps separate categories or subjects would be useful." --1208

"I'm not really interested in business news as much as world news. I'd like to be able to set global exclusions -- no graphics lists, no stock market reports. Seems my filters still bring dson stories I don't want to see. Yes, I'd like to be able to specify information by government agency or author. Mostly I like the topic filter and find that suitable I'd like to be able to store modem received data to disk, log off easily, and change the file name to a new eight character DOS name." --1209

"Would like some broad, background stories as per WSJ (and often in the NYT too). However, when I do use the system, I'm usually looking for a specific fact or facts (name, event, etc.). My filters are probably 75% fact, 25% general." --1210

"I would like to be able to access information on business and economics. Most useful would be access parameters of company name or stock symbol to acquire current pricing, stock pricing and volume movements with last 31 trading days (i.e. new product announcements, corporate officer changes, legal situations, relocations, M&A). This type of information is usually better reported in the Wall Street Journal, therefore I vote in favor of that source's incorporation into CommInS if it has not already been so." --1212

"I am not interested in receiving business information through Boston CommInS." --1214

"I would most personally be interested in business information on the system." --1216

"Filter lines should be accessed by all means for business and economics -- basically allow a combination of terms to be parsed into a more basic set and presented to the user. Would like to get stories from Wall Street Journal such as: 'All on: IBM Corp, Digital, Compaq' as well as quotes: most active or stocks: <date> etc." --1219

"To follow specific companies, the access would be by either company name or stock market symbol. The information would include stories as they are reported or developed as well as financial data (quarterly reports and stock trading). It would be nice if one could manipulate the figures easily in a spreadsheet from analysis and plotting." --1220

"Best -- detailed stories on particular businesses or industries as in Wall Street Journal -- especially effect of Japanese competition. Best located by business name or by industry." --1223

"I am not very interested in business or economics. I guess I would like to be able to access information on companies by stock market symbol, but I don't consider this very important." --1225

"Business information would probably be most useful if presented by company name or industry; with some referencing by date. I would think that the majority of people would most likely find summary stories sufficient for their business information needs." --1227

"More detail is better." --1232

"**Filters:** From years of experience with BRS and Dialog, I find the most useful elements are, in rough draft order of

priority: 1) Industry or subject 2) company name 3) author 4) source 5) dates. Automatic pluralization (e.g., computer also gets computers) would be very helpful.

Types of Information: I tend to like Wall Street Journal or Fortune type articles. For statistics, I'm willing to dig in the library when needed. Boston Globe and Reuters would be very much appreciated. If not the whole Globe, how about the 'Calendar' and 'Sports Plus' listings." --1235

"(Answer to first paragraph) By combination of industry and government agency name with company name maybe as an option. (Answer to second paragraph) More detailed stories like those found in Wall Street Journal or Business Week or Forbes would be great." --1243

"I select information by industry. I am not interested in stock prices or statistics. My filter lines contain the words that describe the industry and products that I am concerned with." --1244

"The list of methods mentioned above sounds good. Toggling a whole group of filter lines under a single 'global filter line' would cut down tremendously on keying ion filter line changes. I could store a few hundred filter lines under a much smaller number of global descriptors, and easily and quickly fine-tune searches. Amongst other interests, I'm interested in both detailed and summary data on the micro computer business, use and applications. This includes market surveys." --1275

"Since I am not a business-type and I do not generally read articles in that subject category I do not have much to comment about on this essay question. However, if I should become interested in stocks or the housing market, I would definitely want to follow these interests by company name as well as area. Even as a consumer to find out information about a specific company, for example an insurance company, could be quite helpful." --1277

"Wall Street Journal has best business coverage, by both firm, industry, and topic/issue. Also good: Business Week. I would like to access information by company, industry, and topic. Examples of topics are: engineering, product design, manufacturing, unions." --1295

February 1988

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
58	0.00	60.00	240.00	600.00	1400.00	492.36
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
56	0.00	5.00	10.00	15.00	120.00	14.00
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
57	0.00	3.00	5.00	10.00	60.00	9.37
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
56	0.00	3.00	6.00	15.00	60.00	9.89
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
54	0.00	0.00	0.00	1.50	10.00	1.55
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
59	0.00	30.00	75.00	200.00	3000.00	201.53
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
59	0.00	8.00	30.00	100.00	300.00	57.08
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
59	0.00	4.00	10.00	25.00	250.00	22.38
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
58	0.00	2.00	5.00	10.00	50.00	8.49
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
58	0.00	0.00	0.00	1.00	15.00	1.19
55 I find that the information available is of: little interest--great interest						
63	2.00	6.00	7.00	9.00	10.00	7.10
70 I find the system has: no value to me--some--great value to me						
64	3.00	6.00	7.00	8.00	10.00	7.06
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.						
59	0.00	10.00	20.00	30.00	150.00	26.78

93 My interest in the system is: decreasing--unchanged--increasing

64	2.00	5.00	5.00	6.00	10.00	5.49

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

46	0.00	0.00	0.00	0.00	30.00	2.30

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

46	0.00	0.00	0.00	0.00	25.00	1.43

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

46	0.00	0.00	0.00	0.00	5.00	.87

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

45	0.00	0.00	0.00	0.00	5.00	.33

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

56	0.00	0.00	0.00	0.00	30.00	3.07

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

47	0.00	0.00	0.00	1.00	30.00	2.60

181 I use the 2-way system __ sessions/week.

45	0.00	0.00	0.00	1.00	5.00	.56

182 Each 2-way session lasts about __ minutes.

35	0.00	0.00	0.00	10.00	60.00	8.54

212 I own and use a modem with the CommInS system: yes[1] no[0]

60	0.00	0.00	0.00	1.00	1.00	.43

291 Each week, I print about __ articles

52	0.00	0.00	0.00	5.00	35.00	3.84

292 Each week, I save aobut __ articles to another directory for later use.

44	0.00	0.00	0.00	1.00	20.00	1.78

293 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in the Boston Globe

59	0.00	10.00	25.00	50.00	910.00	45.34

294 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in the Boston Herald

44	0.00	0.00	0.00	0.00	50.00	1.36

295 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in other daily local newspapers

46	0.00	0.00	0.00	0.00	100.00	6.20

296 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in the New York Times

56	0.00	0.00	10.00	25.00	100.00	16.52

297 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in USA Today

44	0.00	0.00	0.00	0.00	25.00	.91

298 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in the Wall Street Journal

56	0.00	0.00	10.00	10.00	100.00	13.21

299 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in other out-of-town newspapers

43	0.00	0.00	0.00	0.00	25.00	1.63

300 On a typical day, I read a (real) newspaper and usually scan the headlines or read the first paragraph of: 0-10-25-25[sic]-50-100-250-500 articles in foreign newspapers

43	0.00	0.00	0.00	0.00	25.00	1.51

301 Of these stories, about __ percent would be captured by my current CommInS filter if my system were running when the story was broadcast.

59	0.00	20.00	40.00	50.00	90.00	39.21

302 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in the Boston Globe

56	0.00	0.00	10.00	25.00	100.00	13.48

303 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in the Boston Herald

42	0.00	0.00	0.00	0.00	5.00	.12

304 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in other daily local newspapers

44	0.00	0.00	0.00	0.00	10.00	1.36

305 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in the New York Times

53	0.00	0.00	0.00	10.00	25.00	6.32

306 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in USA Today

42	0.00	0.00	0.00	0.00	10.00	.48

307 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in the Wall Street Journal

54	0.00	0.00	0.00	10.00	50.00	6.17

308 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in other out-of-town newspapers

42	0.00	0.00	0.00	0.00	10.00	.71

309 On a typical day, I read a (real) newspaper and usually read a significant portion of: 0-10-25-25[sic]-50-100-250-500 articles in foreign newspapers

42	0.00	0.00	0.00	0.00	25.00	1.55

310 Of these stories, about __ percent would be captured by my current CommInS filter if my system were running when the story was broadcast.

57	0.00	20.00	30.00	50.00	100.00	40.10

311 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in the Boston Globe

55	0.00	0.00	10.00	10.00	50.00	7.86

312 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in the Boston Herald

41	0.00	0.00	0.00	0.00	0.00	0.00

313 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in other daily local newspapers

43	0.00	0.00	0.00	0.00	10.00	.81

314 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in the New York Times

50	0.00	0.00	0.00	10.00	25.00	4.06

315 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in USA Today

42	0.00	0.00	0.00	0.00	10.00	.60

316 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in the Wall Street Journal

53	0.00	0.00	0.00	10.00	25.00	3.68

317 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in other out-of-town newspapers

41	0.00	0.00	0.00	0.00	10.00	.24

318 On a typical day, I read a (real) newspaper and usually read carefully: 0-10-25-25[sic]-50-100-250-500 articles in foreign newspapers

41	0.00	0.00	0.00	0.00	25.00	1.34

319 Of these stories, about __ percent would be captured by my current CommInS filter if my system were running when the story was broadcast.

55	0.00	5.00	30.00	70.00	100.00	37.38

320 I would like to have the software prompt me with function key descriptions at the bottom of the screen: 0[no]--5[maybe]--10[yes]

63	0.00	1.00	5.00	7.00	10.00	4.65

321 I would like to have stories from the AP available via the modem connection: 0[no]--5[maybe]--10[yes]

61	0.00	5.00	7.00	10.00	10.00	6.77

322 I would like to have stories from the NY Times broadcast in groups at scheduled times of each day so that I could turn on my system to capture them without fail: 0[no]--5[maybe]--10[yes]

65	0.00	5.00	8.00	10.00	10.00	7.11

323 I would like to mark stories to keep and others to delete for group processing at the end of a reading session: 0[no]--5[maybe]--10[yes]

65	1.00	6.00	9.00	10.00	10.00	8.12

What other database and data management programs do you use on a personal computer? For example, do you use Lotus 1-2-3, HyperCard, Paradox, d Base III, or any other programs?

If so, would you like to have the CommInS software reformat the information delivered by the radio signal so that you could read, store, or manipulate the stories in the database program that you now use?

Please be sure to mention your general and specific thoughts on this proposal.

"I use Quattes, Reflex and Iugress for the current information supplied this wouldn't be necessary. If new sources of information are provided then it would be nice to be able to put it in a real database." --1005

"I don't use a d-base package now, but I would seriously consider doing so if the broadcast could be captured in the database format. I would use the filter lines for the first pass and database queries to find specific articles." --1006

"Symphony. Multiplan. No interest in storage or manipulation of CIS data on database or spreadsheet programs." --1009

"Database management programs that I use: Lotus 1-2-3, dBASE III Plus, Alpha III, and Sidekick. I can not conceive of how I could use a data management program with the system given the memory capacity of my disk drive. Probably if I had huge amounts of memory, I would like to store past articles with different indexes that could reference them." --1011

"Lotus 1-2-3. I have no need for CIS to communicate with these. A better CIS file manager or ties to other file managers would be helpful." --1013

"1) We sometimes use lotus 1-2-3, Hypercard, notebook II. Our word processor, Nota Bene, has a text-basing facility and we have Norton Utilities, which can find files. 2) We don't use data base management systems very often. Our main concern is finding articles when we need them or being able to use excerpts in quotations or for bibliographic files. We can index the articles for this purpose already as Nota Bene accepts ASCII files. However, some way of integrating the files into Notebook II's bibliography program would be useful." --1025

"I do use retrieval systems. One needs to be able to reformat bibliographic records into a common format (c.f. SciMate) and create personal bibliographic files for common retrieval." --1041

"I use Lotus 1-2-3. It would be useful to be able to store information -- such as stock quotes in a format usable by Lotus 1-2-3." --1043

"I currently use no data bases as my school work does not require the need. However, I do feel that it would be helpful to be able to sort articles. Also, FYI -- I do not read any printed material, as I am totally blind. Thus, I rely solely on Boston CommInS for all the news." --1051

"I use 1-2-3, but not as a data base program. It would be useful to have a database manager to manipulate stories received through this program, since the system itself is not good at filtering. My problem with this question is inexperience with databases. I don't really know what can be done. On the other hand, a more expert filter algorithm would be very useful: to keep from storing four copies of the same story, as happens quite often now." --1057

"I don't use any data base, but I do use MS/DOS filing system. I would like to be able to store stories in MS/DOS files." --1065

"None." --1068

"[...manipulate the stories in the database program] And your index files. Best suggestion, possibility, I've read/heard in two years. Also, then I could age purge various categories automatically in my program. Would like to use the general query capability of advanced data base programs to retrieve better than my present filter then maybe I should work harder on filter -- it's problem is false dups based on words in text so article gets misclassified because of a parenthetic or aside ending paragraph but category/title only doesn't seem to work. Maybe it could be better if I captured a months worth of titles and categories and then analyzed to make a better filter." --1070

"I use Lotus 1-2-3 but I cannot see that it would be terribly useful for CommInS. I do not use a database program but I could see where that would be useful if a significant number of articles or interest were available." --1072

"I use Lotus 1-2-3 monthly. I'm not sure how to use it with CommInS. Maybe you could import files such as stock tables into it but I'm not sure whether that's that useful. Perhaps an easy way to put files into a word processor format might be better." --1076

"At present we are using 1-2-3 for spreadsheet and are in the process of deciding which data base to upgrade to: Rapid File or dBase III. We cannot envision how or in what way we would need to read, store or manipulate CIS information in spreadsheets or databases." --1084

"Lotus 1-2-3. Cornerstone. Reflex. Personally I foresee no use for database programs with the text that I retrieve. I would prefer to store it as hard copy. If I had a massive system, (e.g. a 386 based machine and a large >100 meg fact hard drive or a CD) I could foresee storing the text in a Hypertext environment, but it wouldn't be of much practical use until I had accumulated years of information -- unmanageable by manual techniques." --1088

"1-2-3, dbase III, have Hypercard, Paradox, REflex, Filemaker +, etc. but don't use latter. More interested in information about stories -- date, source, author, what filter line caught the article, other categories. Would love to be able to have financial data formatted for use by those. Still, best use is something I can do no, file using Instant Recall (text database) and retrieve in [unknown word] fashion similar to the filter lines." --1096

"This sounds useful, but I presently have no need for such an ability. I would expect others to have great interest in this idea, however. (But, I thought we were not supposed to keep any articles/information around in any form for more than 90 days?)" --1098

"1) Hypercard on Mac! 2) Paradox on IBM. Last: Excel on Mac." --1100

"Yes, I use Lotus 1-2-3 and dBase III. Being able to manipulate stories in database programs is not very important to me. I don't see this feature as being very important unless we deal with special services such as continuous update of the Wall Street stock market." --1106

"I do not use any PC database or data management programs, however I think it would be very useful to support some of the various database representations. An important question is which formats to support and how to categorize the data. In general, I thin that nay system would need to be flexible enough to enable the user to specify a set of categories into which the articles would be saved. These categories may be the same or different from the ones used on the filter lines. With such a wide variety of database products available, I do not see any simple mechanism for dealing with sorting the articles." --1109

"I do not use any commercially available database management programs. There are no tabulated data I receive over the radio that I would wish to use in a database. I suppose there are those who would want to plot stock values. I would think that this type of capability is too specialized to warrant development." --1112

"I really don't have very many thoughts on reformatting articles to be used with applications software. I don't use any applications programs except for word processors, and if wanted to read in an article, it would be no problem. I'm sure that having these articles stored on a database on a person's PC would be a nice feature, but I do not see much use for that. After all, through the modem connection, a person has access to the past New York Times articles anyway. I guess my final thoughts on this subject are that if it doesn't take very much effort to reformat the articles (i.e., writing the software), then do it. If not, then don't bother." --1116

"I use Paradox and Alpha/III and would like to be able to store movie and book reviews, especially book reviews because I usually read the book so much later after reading the review and then I want to read the review again but it's long gone. I would like to be able to sort by author or subject of book. Also, would like to sort by AP or NYT and to be able to search for a certain date and delete all articles older than a certain date. The search and sort functions of a database program relating to the news data is most valuable to me." --1118

"I use several programs -- RBase, Professional File, Hypercard, SPIRES. I find the ability to reformat and bring information into a given DBMS one of the major current challenges and one that is of great urgency if we are to make our 'information society' a reality." --1121

"I use a text-oriented (but not free-form) database called Nutshell Plus. I have experimented with importing CIS stories into N+ but I haven't found a real need for it. The ability to keep a large on-line database of articles would be useful in some cases, but it needs to be easy and straight forward. (To input into N+ I have to modify the file with a text editor.) My main problem though is that I only have a 10 MB hard disk that is approximately 90% full, so I have no room to store large quantities of data. This may change in the future, but for the moment it is a great limitation. I have considered the purchase of a free-form database system (indexer) like Zyindex or Gofer, which would be readily compatible with CIS files, but again, I lack disk space to fully exploit the extended capabilities." --1126

"I don't use database/management programs -- no opinion." --1127

"We use: Lotus 1-2-3, dbase III, Database II - the Integrator, PC-Outline, Word processors. Definitely portability would be a great asset to the system. Portability and the ability to integrate with other programs is the wave of the future for pc's I feel." --1130

"(A) Javelin, Hypercard. (B) Interesting idea. Don't have enough experience with modem access to CommInS to anticipate how I'd use an article database. I would be much more interested in better ways of grouping filters, eliminating redundant articles and applying filter parameters to groups of filter lines." --1133

"I do not consider 1-2-3 type spreadsheets to be data management tools. I use Paradox, Excel, Javelin, and Wordstar 4.0. I also use dBase III because it can do sorts etc, in the background (Windows) and uses little RAM whereas dBase III can't be running because it is not well behaved. I use Multiplan because it combines sheets much more easily than 1-2-3 and because, unlike 1-2-3, it runs on hundreds of CP/M PCs. I use 1-2-3 to pick up sheets from people at Fortune 500 companies and then transport to Paradox, Excel, or Javelin. The Multiplan SYLC format also works in Excel on Tandy 3000 sets and on Mac so: ASC II, SYLC, and WKS are the main formats but only ASCII and a text/word processor with powerful search commands is well suited to prose. Better, everyone has Norton Utilities File Information (FI) so maintain FI by putting the keywords that are highlighted in our articles into FI. The public domain program "Super Search" can take any file(s) containing certain text and copy, print, or archive it. Distribute it and a public print-to-disk pipeline utility for DOS 2.X and 3.X." --1134

"I occasionally use 1-2-3, but it would not make sense to save the information I get from CIS in a database program. You're obviously interested in people who use the system for financial information, and I don't." --1137

"Nothing to say." --1148

"Use Lotus 1-2-3. Would use link to CommInS only if detailed stock market information were available." --1152

"Daily reading and 'clipping' (i.e. printing or storing electronically in storage file) serves me well. I would be more interested in AI-style database management and manipulation of files if professional journals and news letters were also available through CIS." --1158

"The filter categories that relate most to business and economics are: economy, trade deficit, interest rates, Wall Street. I would like to get a filter line that would catch all of the New York Times front page articles for a particular day. Also, the Wall Street Journal would be the best single news source to add to CIS." --1160

"I don't have any of the above programs on my computer, but if this feature was available on CIS, I might very well buy 1-2-3 just to be able to use it with CIS." --1160

"I would like to be able to answer these questionnaires over the system/modem! I am visually impaired and I can access my computer at will. It is sometimes different to get a human to read print." --1162

"I think the simple and direct solution is a simple 'save article to text file' command, which CommInS lacks. This

command would remove the (now unnecessary) hi-liting information, reformat the header contents (and perhaps display the keywords that trapped the article), then append the article text to the file specified. Then, the CIS version -- with the obscure name like A871205.620 -- could be deleted without worry, providing budgeted space for a new article. This saving of interesting articles into plain text files named by the user is a crude but effective management technique for controlling CIS use of disk. As far as storing and reading, plain text files can be read with a good editor or file browser -- you don't usually need 1-2-3 or dBase to read text, though some folkes think so. If you really wanted to put articles into 1-2-3 or dBase, you still can! Most of these types of 'database' programs have 'text import' commands, viz: '/FIT' in 1-2-3. Therefore, simple, flexible text-file-save command is the way to go. P.S. Plain text can be DOS printed...try printing a .WK1 from DOS!" --1163

"I use no DB programs now, but would like to be able to store and retrieve articles in such a program." --1165

"Lotus 1-2-3. Microsoft Excel. Paradox. Yes, it would be convenient to reformat the CommInS output into fixed fields for the headers information and a variable length field for the story. Paradox would be my choice of a product to take advantage of this capability." --1171

"Sorry; though I have a Lotus 1-2-3 clone available, I've made no use of its database management capabilities as yet, and can't shed any light on the present questions." --1174

"I own 1-2-3 but don't use it much. I have not found information on CommInS that seems like it would be useful in 1-2-3, dBase, etc. What articles have extensive numerical information? I use a program called Square Note that is a text oriented information or data manager. I run the CommInS in a Desqview window and transfer information from articles in CommInS to other programs using the cut and paste facility in Desqview. I'm not sure if CommInS can reformat articles, this would be of any real help to me. It would be if I did not use the Desqview window and would save time. There is a RAM space problem. Desqview uses quite a bit of RAM and CommInS uses a lot of RAM. If other changes in CommInS make Desqview unnecessary the formatting feature would be more valuable to me. As always, the vers to these questions really depend on other information that I don't have. What is the next version of CommInS going to contain? What is this stuff about the 'first phase'?" --1181

"I use 1-2-3 and Revelations. I would like CIS to allow me to easily move files into a word processor or Rev file. Additionally, I would like to be able to identify to source of filter line which captured the article." --1192

"Don't use any -- Sorry..." --1201

"I don't use a database at present but may be getting one (dBase III?) soon. I think it would be very useful to be able to interface with a database but I'm not a present able to give recommendations for such a procedure. Ultimately, I'd be interested, however, in assessing how much and what kind of arts information, or real political issues (as opposed to non-political issues related to politicians) gets passed on through the news media. The first I'd be interested in professionally, the second for personal reasons. I'd also be interested in assessing on an on-going basis, information of health related and disease related issues, again for personal information." --1206

"I do not at present use any of these database programs but am only familiar with their concepts -- the idea behind the hypercard and the Boston CommInS would seem to work well together. I really do not see that much a need for this personally since we have full text retrieval from the modem. Perhaps I don't see the need for keeping too much information too close -- I am a reference librarian and feel that when information is needed it can be retrieved. I am not that interested in keeping on hand more information that I know can be re-retrieved. Some people would, I believe, make use of a filing system such as this." --1207

"The only database management program that I use is Lotus 1-2-3, and I do not use it for database purposes. I would have no interest in using the CommInS with such software. I never use the files it produces with any other software." --1208

"Alpha/3. dBase III, Framework II. No, I'd prefer to be able to access the data with my word processor than with a database manager. I'm so disappointed with the overflow of stories I don't want (stock, graphics, sports) that I don't want to manipulate the whole stock, as much as I'd like to work with the few I get that I care to read. I'm amazed that I get so many duplicates of things I really don't want to read. I'd like more information on excluding junk." --1209

"I use Q&A, Reflex, dBase III. No interest in reformatting CommInS material for them. When I do capture material I need, want, use as straight text (no financial charts, etc.). Good idea though." --1210

"For stock prices, if the Wall Street Journal tables broadcast, reformat for 1-2-3 desirable. For text articles, which comprise the bulk of my receptions, I would like to have those articles processable by programs such as Agenda. I am currently able to save those articles I desire and print them via the DOS type command. Since participation in the program, I cannot get the article to print directly to the computer's printer. But, I can edit via a word processor and get rid of the indexing data." --1212

"I use Lotus 1-2-3 and dBase III. If the CommInS software were well written, and the needs of the users analyzed and incorporated, I see little value personally. However, depending upon their needs, other users might find using CommInS data with 1-2-3 or dBase III useful. It seems to me that it would be relatively simple to write a utility to convert CommInS data information into the desired format. Those people who want to convert to another format then have the capability." --1214

"I use dBase extensively. Frankly, your own query processor is sufficient and I would have no need to employ a dBase format." --1216

"I use: Lotus 1-2-3, occasionally Paradox, and Javelin Plus. I do not desire any sort of capture utility for text files. It might be useful to capture/format numbers such as stock market quotes, etc." --1219

"Lotus and dBase. Maybe selected stock prices for portfolio valuation. Could also archive stories into a database program or as an option in the current remote system. Would then retrieve later by keyword. Could use word processing search software to find stories as well." --1220

"Lotus 1-2-3 and Paradox. I also use Notebook II, which is very good for unstructured, valuable length text information. It would be very useful to be able to incorporate CommInS files directly into Notebook. Since I acquired a modem, the system has become much more useful, although I wish it provided access to other databases (esp. magazine articles)." --1223

"(1) Lotus 1-2-3. Geochtice Financial Software. My own data management programs, written in BASIC. (2) No, I don't see how I would do that with anything I have, except possibly my word processing system, Word Star 2000+." --1225

"1-2-3, Symphony, Paradox, QA, Cornerstone. DB format would be quite useful." --1232

"I use Symphony, RBase, Freelance (graphics) and Word Star. Until now, I've had no occasion to need your information imported into one of these others. Once or twice, it would have been nice to quote an article (e.g. move into Word Star), but the items were so short that the electronic transfer probably would have been slower than simply re-keying the text into Word Star. Despite these comments, I'm open to any ideas you might have, e.g. capturing stock prices." --1235

"Lotus 1-2-3. No, I don't see much need to put information into Lotus from Boston CommInS." --1241

"For data management I use Reflex on my PC. I find most database management programs not very useful especially in application specific tasks e.g. filtering, reformatting and filing or cataloging. Usually a specific filter program written in 'C' on the system out performs my Reflex. I think it would be to difficult to make 'CommInS' compatible with three or four most popular 'Database Managers' and not very, very useful. Maybe additional simple and general catalog/filter/routines added to 'CommInS' would be more useful." --1243

"I have written my own programs to disassemble articles and catalog them. If I were going to use a commercial database program I would chose a 'text' database instead of the ones mentioned above. Ask Sam or XYIndex are examples of programs that can do text searches which are similar to the ones CommInS can do. One thing I use this for is to keep movie reviews and then look up old reviews when I go to rent a video." --1244

"Lotus 1-2-3, dBase III, SuperCalc III, bit com, Pro Com. Generally speaking I like the idea of using standard interfaces between different commercial software packages. In the case of CIS, it would be nice to have the first standard interface

(output file from CIS) be in a straight ASCii form and the second standard interface be DIF or some other agreed upon standard: For tabular information 'comma separated variables' is quite common." --1275

"I do not use a database at present so I cannot comment on this month's essay question. However, I would like to report that the program crashed this month. I blanked the screen via the menu and that was the last I saw of my filter. The screen froze and nothing except re-bootii.g my computer gave me back control. Furthermore, starting up with the -R option did not successfully reconstruct the directory (I tried a couple of times). Instead, I had to resort to erasing the program and files and reloading from the floppy disk. Since I have been out of town quite a bit recently I haven't had the time to completely rebuild my filter." --1277

"The only database program I use is 1-2-3. Since the information my screens capture is almost 100% textual, this proposal would not effect the way I use the system." --1281

"I use 1-2-3, for numerical work, and Squarenote, a text/flat file database program. It would be useful to reformat the articles for use in Squarenote. This would involve a simple text editor (not necessarily in CommInS), to put a header on each article. Then, Squarenote could 'import' each article as a separate record. Even a very simple ability to rename and permanently save each article would be useful. This should include the ability to move articles to another subdirectory. Right now, this is a major pain in the neck." --1295

March 1988

Question # Text

Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day						
61	0.00	45.00	180.00	700.00	1440.00	413.33
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day						
63	0.00	5.00	10.00	20.00	90.00	13.90
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day						
63	0.00	3.00	10.00	15.00	50.00	10.16
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day						
63	0.00	4.00	6.00	15.00	45.00	9.10
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day						
57	0.00	0.00	0.00	1.50	10.00	1.59
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day						
61	0.00	30.00	50.00	200.00	3000.00	175.31
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day						
61	0.00	7.50	30.00	60.00	500.00	59.43
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day						
61	0.00	3.00	10.00	20.00	150.00	19.03
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day						
60	0.00	2.00	5.00	10.00	30.00	7.92
53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day						
60	0.00	0.00	0.00	1.00	15.00	1.29
55 I find that the information available is of: little interest--great interest						
62	2.00	6.00	7.00	8.00	10.00	7.26
70 I find the system has: no value to me--some--great value to me						
62	0.00	6.00	7.00	8.00	10.00	6.98
81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.						
60	0.00	5.00	20.00	35.00	120.00	25.98

93 My interest in the system is: decreasing--unchanged--increasing

63	0.00	5.00	5.00	6.00	10.00	5.69

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

46	0.00	0.00	0.00	0.00	20.00	2.20

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

46	0.00	0.00	0.00	0.00	10.00	1.37

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

46	0.00	0.00	0.00	0.00	10.00	1.02

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

45	0.00	0.00	0.00	0.00	3.00	.21

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

63	0.00	0.00	0.00	0.00	1440.00	24.60

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

47	0.00	0.00	0.00	1.00	20.00	2.32

181 I use the 2-way system __ sessions/week.

48	0.00	0.00	0.00	1.00	4.00	.50

182 Each 2-way session lasts about __ minutes.

33	0.00	0.00	0.00	10.00	90.00	9.55

212 I own and use a modem with the CommInS system: yes[1] no[0]

60	0.00	0.00	0.00	1.00	1.00	.42

324 I use a laser printer with the CommInS system: yes [1] no[0]

61	0.00	0.00	0.00	0.00	1.00	.13

325 I make changes in my filter lines: 0 [once a month]--5 [once a week]--10 [every day]

63	0.00	0.00	2.00	5.00	10.00	2.86

326 I have to rebuild the CommInS' Directory this often because of power failures or system crashes: 0 [once a month]--5 [once a week]--10 [every day]

59	0.00	0.00	0.00	2.00	10.00	1.55

327 A bug in CommInS software itself is responsible for about __ percent of the times that I have to rebuild.

53	0.00	0.00	0.00	2.00	100.00	13.53

328 It takes the program approximately __ minutes to rebuild the Directory after a power failure or crash.

45	0.00	2.00	5.00	12.50	90.00	10.91

329 I use the CommInS system to follow events and candidates in the Presidental Primaries: 0 [never]--5 [once a week]--10 [every day]

62	0.00	0.00	2.00	7.00	10.00	3.62

330 I find the system is as relaxing to use as reading a regular newspaper: 0 [no]--10 [yes]

59	0.00	2.00	4.00	7.00	10.00	4.58

331 I print articles before I read them: 0 [never]--5 [sometimes]--10 [always]

62	0.00	0.00	1.00	3.00	8.00	1.90

332 After composing and refining a filter line for a topic, I find that the articles captured are relevant to the intended topic: 0 [never]--5 [sometimes]--10 [always]

61	2.00	5.00	7.00	8.00	10.00	6.44

333 I like the name "Boston CommInS": 0 [no]--10 [yes]

62	0.00	1.00	4.00	6.00	10.00	4.15

334 I would like to have the software make use of "extended" or "expanded" memory: 0 [no]--5 [maybe]--10[yes]

60	0.00	4.00	5.00	8.00	10.00	5.67

335 I have a totla of __ kilobytes of RAM memory in my personal computer.

58	256.00	640.00	640.00	1024.00	*******	1377.38

336 I would like the software to work in conjunction with large databases stored on CD-ROM disks: 0 [no]--5 [maybe]--10[yes]

62	0.00	3.00	5.00	7.00	10.00	5.32

337 I plan to buy a CD-ROM disk drive for my personal computer in the next 12 months: 0 [no]--5 [maybe]--10[yes]

61	0.00	0.00	2.00	3.00	10.00	2.21

338 I plan to buy an IBM PS/2 or compatible computer in the next 12 months so that I can use the OS/2 multi-tasking operating system: 0 [no]--5 [maybe]--10[yes]

62	0.00	0.00	1.00	2.00	10.00	2.29

339 If the Associated Press and/or the New York Times published a rate structure for doing so, I would like reprint certain articles (while paying the fee): 0 [no]--5 [maybe]--10[yes]

61	0.00	1.00	4.00	5.00	10.00	3.56

I recommend that you consider these new names for any commercial extension of the system:

E (lectronic) News
News Con (nector)
--1041

On-line News
Personal News Service
--1043

News Wire
--1057

CompuNews
News-On-Line
--1088

Telenews
Personal News Consultant
--1096

CompuTimes
--1106

Boston InfoSys
--1109

NewsLine
In Touch
--1112

News Wave
--1130

Wave News
Dipole Digest
DBS Evening News
Filtered Facts Network
--1134

"Would vary with city"
--1141

News Network
--1158

Elektrik Newspaper
PC/News
AP/NYT Wires
--1163

CompuNews
Infodiffusion
News Wireless
Datadispatch
PC-Instanews
--1174

Boston Informational Resource
--1184

Boston InfoSource
--1207

The Daily Planet
Home Newswire
--1208

Flash News
News Line
HotFlash
Clipper Packet (like that!)
--1209

Information On line
Facts Fast
News line
--1210

PC-News
Newsnet
--1212

News Flash
--1214

Telenews
CompuPress
Digital Radio Network (DRN)
--1220

Electronews
--1221

The News Machine (that's what I call it at home)
--1225

Boston Computer Newswire
Your Personal Newswire
--1235

Air Paper
Custom Filtered News
--1243

NEWS
The News
--1277

Info Scan
--1281

Instant Newspaper
Paper by PC
--1295

Please describe how the CommInS system has changed your newspaper buying habits, if at all.

"Not at all." --1005

"No change." --1009

"The CommInS system has changed my newspaper buying habits in that I don't have to buy a newspaper everyday if I am trying to follow a particular event. Following events is the news services greatest strength to me. For example, I am following the Iditarod dog sled race right now. I don't know of any other way I could be sure of getting the latest information on the status of the race." --1011

"I buy newspapers just about as often as I used to. I would buy more, except that the papers in Boston (e.g. the Globe) just aren't any good, and the NYT is too expensive (and you don't get the late edition). Unfortunately, CIS does not reliably capture all I want to read, but I would keep buying papers and I like CIS. Cost is a major determining factor for me on both counts." --1013

"The system has not changed our habits. We read the Boston Globe and the New York Times every day before starting the CommInS system and still do." --1025

"No change in buying due to system. Maybe some general increase in news interest." --1041

"I have dropped subscriptions to Wall Street Journal due to lack of time to read it, but I still spend time on CIS. I feel I get some of the good parts of the New York Times -- e.g. commentary and lead articles, without subscribing to the paper." --1043

"Not at all, as I am totally blind... Friends fill out this questionnaire for me." --1051

"I subscribe to the Boston Globe (daily and Sunday), the Wall Street Journal, and the New York Times (Sunday only). We also get two town papers. This system has not affected our subscriptions. I do spend less time with the papers, because some articles are those I have already seen." --1057

"I buy the Boston Globe, Sunday New York Times, and assorted specialized news papers and magazines. The Boston CommIns, by providing me with the daily New York Times, reduces the need to buy the New York Times during the week (although I probably wouldn't buy it most days due to a shortage of time to read it). CommInS also provides me some AP news not readily available in newspapers. This includes Celtics stories, and other topics I'm interested in." --1065

"Not at all." --1068

"It hasn't but it's made me accept the change I made just before CommInS started. For three years I have given up the

daily NYT, reading the Sunday Times only plus daily delivered Boston Globe. At 58, it's made me happier to get the New York Times coverage when I want it and wait for retirement's greater time to again subscribe to daily Times. [Couldn't the software track page one statistics better for you so we'd print it out and mail in and spend more time on subjective/attitudes/usage essay?]" --1070

"I no longer buy (or read) the Globe. This change is only partially due to CommInS though. I find my schedule so busy that I do not have time to read it. I still get the Wall Street Journal." --1072

"It really hasn't changed them at all. I still find a newspaper easier to deal with since it's far more portable and easier to get started into operation. Unless these can be dealt with, I would see Boston CommInS as more of a specialized searching system than as a replacement for newspapers. I think it is more of a complementary system that a replacement." --1076

"I enjoyed the system in the beginning but I have found the newspapers and TV news to be my primary source of news. My newspaper buying habits have not changed at all." --1077

"I don't believe it has changed my buying habits. We don't subscribe to a newspaper, but usually get a Sunday Globe and a Weekday Wall Street Journal, and sometimes read several papers at the library." --1084

"I used to purchase the NY Times every Tuesday without fail; now I still try to, but if I miss it I know I can catch the Science Times articles on line." --1088

"Frankly, it hasn't. I never bought a newspaper (except for entertainment/Calendar section), and that hasn't changed. It might make me less likely to do so, but marginally so." --1096

"I used to buy the Globe or New York Times on occasion -- not regularly. Now, I don't find the need with the exception of entertainment in the Boston area. I will look at a paper that just happens to be around, but I usually have some idea of what's in it already. Unfortunately, I don't have the time to read every last detail on a subject that interests me." --1098

"Not at all." --1100

"I used to be a daily newspaper reader. The CommInS system has changed this to about three times a week. Usually Tuesdays, Thursdays and Sundays." --1106

"I still read the newspaper just as I always have." --1110

"I rarely buy or have bought newspapers. BCIS hasn't changed this. The items I look for in newspapers that aren't available on BCIS are: movie listings, classified ads, and display ads. Movie listings should be on BCIS. BCIS is my main source of information regarding news, current events, etc." --1112

"It's sort of strange how CommInS has affected my newspaper buying habits. I live in a dormitory, and the people next to the lounge in my hall contributed money to get the Boston Globe for the lounge. I chipped in, too, so I should have no need to get another newspaper. However, whenever some extremely interesting event to me occures -- e.g., the thirteenth People's Congress of mainland China -- I buy a copy of the New York Times in order to get the fullest coverage possible. I usually find the the associated articles of a main story are never caught by my system. Another time that I bought the paper was when the stock market crashed because the business coverage is much more complete in the paper than on CommInS." --1116

"I definitely rely more on my computer now for the news and am less inclined to buy the newspaper in some instances." --1118

"I still read the New York Times, the Crimson, and the Wall Street Journal daily as well as the Worcester Telegram. On Sunday, I read the New York Times. I do not see this service as a replacement for the papers but as a complement to it. There is considerable non-overlap." --1121

"A few months after getting the BCIS system up and running reliably I canceled my New York Times subscription. I

found that on those days when I went to MIT I would read the office copy there, and when at home BCIS was an adequate (and free) substitute. The advent of the phone connection also allowed me to catch up on news in large batches if I was too busy to read the stories during the week. I should note, though, that this decision was based to a large extent on economic considerations -- a NYT subscription costs hundreds of dollars/year, while BCIS is free. If the two systems were equal cost, I think I'd prefer the paper for its convenience and variety, although I'd still like to have phone access to the databases for searches and 'catching up.'" --1126

"It has not. I still subscribe to the Globe and Sunday NYT. They are sources or common conversation and knowledge in my community (business/professional)." --1127

"It hasn't affected my buying habits, although it has perhaps made me content to read the papers less frequently." --1130

"Unchanged." --1133

"Not at all, I never had time for them." --1134

"I can't say that my habits have changed at all. I still subscribe to the Globe and I still occasionally pick up a NYT on days when events of special interest to me are covered." --1137

"CommInS hasn't changed my newspaper buying habits to a great degree. I still purchase my local favorites regularly, but purchase others indicated on previous questionnaires less frequently." --1138

"No change -- not much more to say. I buy the paper for diversity, to see what catches my eye (that I would not have thought about before hand). I rely on the editorial boards to highlight interesting stories." --1141

"Not at all." --1148

"Easy essay: No change!" --1152

"No change." --1158

"Not at all. The system is a superb supplement to newspapers, being timely and targeted (filters). But it lacks everything else that makes a paper a paper: comics, photos, Hints from Heloise/Ann Landers, etc., advertising (yes, some people read it), TV Guide (complete listings), big headlines, classifieds, index, Mike Barnacle. The [unknown word] of 'everything else' is enough to make Boston CIS a great and valuable addition, but not to make me buy 'real' newspapers any less often." --1163

"Not at all." --1165

"I now buy the Globe as much as ever, but more for editorial/op. ed./letters/features/financial data than for straight news. I am less tempted than previously to buy a second paper, the NYT." --1174

"To repeat, I have a visual impairment and find it difficult to locate articles quickly when looking through a 'real' newspaper. I have come to rely on the CommInS for most of the news I would have gotten from real newspapers. I used to get the NYT every day but now just get it on Sunday. I may stop it altogether because I am finding ways to get most of the articles I want using the CommInS. I get the Boston Globe every day to read about local events, TV, what's on sale in 'the Basement'. I prefer (because of my vision) to read the local news in the AP stories on CommInS." --1181

"I buy the NYT much less frequently, and the Globe more frequently." --1192

"None at all." --1194

"It has not changed my newspaper buying habit at all because I was always very bad about buying newspapers. However, it had helped to keep me better informed while still being bad about buying newspapers." --1201

"I can read the newspaper now without getting all that newsprint all over me. I don't any longer get the newspaper every

day. I particularly like the modem aspect of finding articles that I might have missed otherwise. It doesn't replace the Sunday Times, though. You have to have that in the flesh. You must put in a program section that will remove an article to a 'save' section. In the newspaper, if I want to save something I cut it out. Printing is so cumbersome because it stops you from playing with the rest of the program." --1206

"It has not changed my newspaper habits I still read NYT and Boston Globe, I feel like I have a better grip on reading and keeping the stories that pertain to my interests -- hot spots in the world, political events, primaries -- but I have not changed my newspaper habits at all. It has simply given me some insight into placement of stories, what's left out of the newspaper and why." --1207

"Before the CommInS, I usually read the Globe or the Times at the library at MIT, an often bought one on Sundays to browse. Now, I very rarely buy or read newspapers. I find the CommInS has basically replaced my need for newspapers as a source of news. On the rare occasions (once a month?) I do buy a paper, it is usually 1) the Sunday Globe 2) the Globe with Boston Calendar 3) because I'm going to make a purchase and want to look at the sale ads." --1208

"I seldom buy newspapers during the week. I still buy the Sunday Globe. Therefore, no real change in newspaper buying behavior." --1209

"No change." --1210

"Very little. I devote more time to the WSJ than to CommInS. If that newspaper were available on the service, I would not need other newspapers. Another feature that would affect newspaper buying habits would be the ability to place local news on the air. For example, if the local weeklies could tie into the system, their news reporting could be more timely in delivery. It could serve to balance the news flow for these papers by encouraging reporters to complete articles sooner." --1212

"CommInS has not changed my newspaper buying habits. Great idea! How about transmitting the Boston Globe Real Estate Section such that filters could be used to find houses that meet certain criteria? Since I am currently house hunting I would find that useful." --1214

"There has been no change." --1216

"Can't say that it has!" --1220

"Since acceptance into this program I have stopped the daily delivery of the Globe. The only paper that's bought on a regular basis is the Sunday edition." --1221

"It has had no effect on my newspaper buying habits." --1225

"I basically use the CommInS system as a supplement to conventional news sources, such as newspapers. Therefore, use of the system has really not affected my newspaper buying habits to any large degree." --1227

"I have been out of town for a few months and I have not used my news system. I will return the news system next time I am in Boston. I love my news system when I can use it!" --1233

"I'd say virtually no change in buying habits. We take the Boston Globe and have done so for years. I occasionally read the Wall Street Journal at work, and have done so for years. Your system has made big changes in my reading habits. I spend less time with the Globe (many days skipping it altogether) but more total time reading. Some of this extra time comes at the expense of trade journals, which I now feel less compelled to follow. I know that your system will alert me to any major developments. You have also changed my TV and radio listening habits somewhat. Never much of a fan for TV news, I hardly ever watch it now (three to four times in the past year). Similarly, I never have occasion (except when traveling) to switch on a radio news broadcast." --1235

"I still buy paper mainly for the advertisements, and pictures." --1243

"It hasn't changed." --1244

"The newspapers that I read prior to receiving your system were limited to a few daily issues of the Boston Globe bought sporatically as well as a weekly issue of the Sunday edition. Now, whenever time allows, I share my Sunday news time with the CommIns news. It is much more convenient even if it doesn't carry the comics. So now I buy even fewer newspapers since I have replaced the Sunday Globe." --1277

"The system has not changed my newspaper buying habits. I subscribed to the NYT and WSJ before I began using the system. I would still subscribe to the NYT to supplement the system. Sometimes articles catch my eye that wouldn't have been caught by my filters. Also, I look through the paper to see the photographs. Also, I live with someone who doesn't use the system. For her benefit I would also continue my newspaper subscriptions." --1281

"Little impact. During weeks when I'm using, I'm less likely to buy daily New York Times; but I don't subscribe or buy it often anyway." --1295

April 1988

Question # Text	Responses	Minimum	25th %tile	50th %tile	75th %tile	Maximum	Average
30 How many floppy disk drives does this machine have?	65	1.00	1.00	2.00	2.00	2.00	1.55
31 Do you have a hard disk on this machine? [1=YES, 0=NO]	66	0.00	1.00	1.00	1.00	1.00	.88
32 If yes, how large is the hard disk? __ Megabytes [In Dec, phrased 29.. and __ Megabytes of harddisk capacity]	57	3.00	20.00	20.00	33.00	300.00	32.79
35 How many RS-232 serial ports do you have? __ (Number)	64	0.00	1.00	2.00	2.00	6.00	1.72
44 Average Time spent using Boston CommInS during the last month: Computer Receiving Data from Boston CommInS __ Minutes/Day	57	0.00	40.00	240.00	720.00	1440.00	548.74
45 Average Time spent using Boston CommInS during the last month: Browsing Summaries caught by your Filter: __ Minutes/Day	61	0.00	5.00	10.00	15.00	60.00	11.62
46 Average Time spent using Boston CommInS during the last month: Browsing Full Articles caught by your Filter: __ Minutes/Day	60	0.00	4.00	6.00	10.00	60.00	9.75
47 Average Time spent using Boston CommInS during the last month: Reading Carefully Articles caught by your Filter: __ Minutes/Day	60	0.00	5.00	5.00	15.00	60.00	10.08
48 Average Time spent using Boston CommInS during the last month: Printing Articles caught by your Filter: __ Minutes/Day	59	0.00	0.00	0.00	2.00	15.00	1.58
49 Average Number of Articles found using Boston CommInS during the last month: Articles Caught: __ Number/Day	60	0.00	10.00	50.00	150.00	4000.00	217.54
50 Average Number of Articles found using Boston CommInS during the last month: Summaries Browsed: __ Number/Day	59	0.00	6.00	28.00	80.00	300.00	51.40
51 Average Number of Articles found using Boston CommInS during the last month: Articles Browsed: __ Number/Day	60	0.00	3.00	10.00	30.00	150.00	18.55
52 Average Number of Articles found using Boston CommInS during the last month: Articles Read Carefully: __ Number/Day	60	0.00	1.00	5.00	10.00	46.00	7.78

53 Average Number of Articles found using Boston CommInS during the last month: Articles Printed: __ Number/Day

56	0.00	0.00	0.00	1.00	20.00	1.17

55 I find that the information available is of: little interest--great interest

64	3.00	5.00	7.00	8.00	10.00	6.86

70 I find the system has: no value to me--some--great value to me

64	2.00	5.00	7.00	8.00	10.00	6.86

81 I sit at the keyboard and use the Boston CommIns system __ minutes/day on average.

62	0.00	10.00	15.00	30.00	90.00	23.90

93 My interest in the system is: decreasing--unchanged--increasing

64	2.00	5.00	5.00	6.00	10.00	5.48

131 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Summaries Browsed: ___ Number/Day

37	0.00	0.00	0.00	3.00	20.00	2.72

132 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Browsed: ___ Number/Day

37	0.00	0.00	0.00	1.00	15.00	1.27

133 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Read Carefully: ___ Number/Day

37	0.00	0.00	0.00	1.00	10.00	.85

134 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Printed: ___ Number/Day

38	0.00	0.00	0.00	0.00	25.00	.89

135 Average Time spent using Boston CommInS since the last Questionnaire: (added question): Computer Receiving Data via modem: ___ Minutes/Day

57	0.00	0.00	0.00	1.00	1440.00	27.61

180 Average Number of Articles found using Boston CommInS since the last Questionnaire: Received via Modem: Articles Caught: ___ Number/Day

38	0.00	0.00	0.00	2.00	30.00	3.04

181 I use the 2-way system __ sessions/week.

50	0.00	0.00	0.00	1.00	3.00	.58

182 Each 2-way session lasts about __ minutes.

37	0.00	0.00	0.00	10.00	60.00	7.30

212 I own and use a modem with the CommInS system: yes[1] no[0]

62	0.00	0.00	0.00	1.00	1.00	.45

335 I have a totla of __ kilobytes of RAM memory in my personal computer.

65	1.50	640.00	640.00	1000.00	*******	1222.98

340 I use the CommInS to find information about stocks and bonds: 0 [never]--5 [once a week]--10 [once a day]

64	0.00	0.00	1.00	4.00	10.00	2.17

342 This machine is 100 percent dedicated to the CommInS experiment: Yes [1] No [0]

66	0.00	0.00	0.00	0.00	1.00	.08

343 I have owned or used this computer for ___ years.

65	.10	1.00	2.00	3.00	5.00	2.29

344 I run this non-DOS operating system on the computer.

3	0.00	0.00	1.00	3.10	3.10	1.37

345 The floppy disk drives each have this capacity __ (Kbytes)

62	1.40	360.00	720.00	1200.00	1500.00	745.41

346 This machine has a Monochrome [0] Color [1] display.

66	0.00	0.00	0.00	1.00	1.00	.46

348 This machine has a modem modem [sic]? Yes [1] No [0]

66	0.00	0.00	1.00	1.00	1.00	.76

349 I use this machine for the CommInS at: Home [0] Office [1]

65	0.00	0.00	0.00	1.00	1.00	.33

---

1. Assume for the moment that (i) you could use the CommInS system free for five years, (ii) that you did not have to fill out a monthly questionnaire, and (iii) that for $500.00 you could buy a computer that would run the CommInS software on a dedicated (100 percent) basis. For $500.00, would you buy the system for dedicated use? Comments:

2. Now assume a different scenario -- that the CommInS software runs on several types of computers and that you have saved enough money to buy a new machine. On this new machine, you intend to run the CommInS software heavily, but not necessarily exclusively. What machine would you buy: IBM-PS/2 Model 60, Apple Macintosh II, or Amiga? Comments:

"(1) Yes. If it could store the data for later retrieval. (2) IBM-PS/2 Model 60. All of the software I have is for the IBM-PC." --1005

"(1) No. Too narrow an application. Similar concept to Videotext which has failed. (2) IBM-PS/2 Model 60. Familiar with MS or PC DOS drives decision." --1009

"(1) No. I prefer it ran in the background on my PC. (2) IBM-PS/2 Model 60. My experience and software is all IBM." --1011

"(1) No. For the current quality of service I would pay an absolute maximum of $40.00 per year. (2) IBM-PS/2 Model 60. Actually, I would wait for the 386 PC's to come down into the $2000.00 range, which I think will happen in a couple of years. I already have a significant investment in DOS." --1013

"(1) Curious to hear more. What kind, etc. (2) IBM-PS/2 Model 60." --1025

"(1) Don't have $500 at moment for non-essentials. (2) IBM-PS/2 Model 60. Could easily change my mind to Mac II, depending on circumstances." --1041

"(1) Yes. If I had no computer interest in general. This may be attractive for many people. For myself, I would like to get 80386 with multitasking so that CIS could run in background at all times. (2) IBM-PS/2 Model 60. It would be a close choice vs Mac II, but most of my software is IBM so... . Definitely would pick Model 80 over Mac II. Eventually I'll upgrade to a 80386 clone." --1043

"(1) No. Because of concerns about speech software and hardware compatibility and cost as I am a student. (2) IBM-PS/2 Model 60. Because MS DOS appears the most compatible with speech synthesis technology." --1051

"(1) Yes. Actually the answer is maybe. There are still some very annoying reliability problems, and the duplicate story difficulty has not been resolved. I would also need to know something about arrangements for the broadcast end of the system. (2) IBM-PS/2 Model 60. More likely a Model 80, since my present machine is nearly as capable as a 60. How about a SUN? Can this software be made to run under UNIX?" --1057

"(1) No. Five-hundred paid at the beginning is much more than monthly payments which total $500. There is not enough information that comes over the CommInS system to justify a full time computer. (2) IBM-PS/2 Model 60. My other software runs on an IBM." --1065

"(1) No. One-hundred dollars per year is too much for this service. Twenty-five dollars to $75 would get me interested. (2) IBM-PS/2 Model 60. I am unfortunately IBM bound right now -- if I were starting over, I'd probably go Mac II." --1068

"(1) No. CommInS is of incidental use. I prefer to use my equipment during hours it would otherwise be off -- to receive. (2) IBM-PS/2 Model 60. Not familiar with other two. Only know PS/2 as a multi-tasking system, but still very little application software so I only chose it as a forced choice." --1070

(1) No. I don't have space for another computer. I would more likely use $500 to improve the computer I have. (2) NONE. The IBM is technically obsolete; the Mac II is over-priced; and the Amiga, I can't take this choice seriously. I cannot accept your choices. If I were to buy another computer it would be a 386 machine (probably a non-IBM compatible). A more likely scenario would be to improve the computer I have by adding a graphics card and color monitor." --1072

"(1) No. From a cost point of view, this is about the same as current low end PC clones so I'm not sure about a specialized machine. (2) IBM-PS/2 Model 60. I'd probably go with a clone if available. Mac II seems to pricey to devote to CommInS." --1076

"(1) Yes. This would be a qualified 'yes' in that if we were to have a machine dedicated to communication we would probably use it also for accessing BB systems; such as at BCS or other User Groups. (2) IBM-PS/2 Model 60. We are very IBM oriented now, but still think the Mac would be fun." --1084

"(1) No. I'd prefer to use the software with my own computer because room is a precious commodity. I do not use the radio feature so I require no additional hardware. (2) IBM-PS/2 Model 60. I'd purchase a discounted clone of the IBM machine." --1088

"(1) No. I've got enough hardware now to dedicate a machine to the CommInS (mostly I do). (2) Apple Macintosh II. That's what I will be getting soon, when I sell my SE." --1096

"(1) Yes. It would have to be small and reliable. It would have to include good software support and reasonable hardware support. (2) Apple Macintosh II. What choices you give! I would hope, however, that a decent UNIX would be running on the Mac II along with the X Window System." --1098

"(1) Yes. (2) Apple Macintosh II. Now runs with [unknown word]." --1100

"(1) No. I think $500.00 is a bit too expensive for a dedicated machine especially [since] the clones can be obtained at about the same price. (2) Apple Macintosh II. An Apple Macintosh II would be a good addition to the AT I now have for graphics applications." --1106

"(1) No. (2) IBM-PS/2 Model 60." --1110

"(1) No. I rarely turn my machine off. Unless I do other things (program, word process), it is running News (BCIS). I don't feel it is necessary to buy a dedicated computer. (2) Apple Macintosh II. I already have an IBM machine. I choose the Mac II because it is different and powerful. If I didn't have a computer, I might buy the IBM instead, due to the lower cost of cloned parts." --1112

"(1) No. The $500 averaged out over five years is $100 per year. I hate the idea of spending any money at all for a dedicated computer; it reminds me of obsolescent WANG dedicated word processors. I would much rather buy the software and hardware (the radio link) and pay a monthly access fee. (2) Apple Macintosh II. My choice of a new hardware platform is not in the least influenced by CIS. When I evaluated the three machines listed above, I thought that the IBM Model 60 is over-priced and under-powered, the Amiga is a no-name, and the Mac II is the only computer worth considering. Buying a new computer is too important to let one software package influence the decision." --1116

"(1) Yes. (2) IBM-PS/2 Model 60." --1118

"(1) Yes. (2) Apple Macintosh II. Run it in multitasking environment." --1121

"(1) No. Too much up front -- might rent it for 1/60 one month, e.g. $10 per month. (2) IBM-PS/2 Model 60. Compatible with what I have." --1127

"(1) No. Money is tight and I don't need it. (2) IBM-PS/2 Model 60. You'd have to twist my arm to take one of these three choices. I'd prefer the compaq 386/20, because of its greater compatibility with IBM PC/XT/AT software and hardware." --1130

"(1) Yes and No. At $500, the floppy storage would be a bit low, but the concept is very good if and only if the files were a standard, interchangeable, format. (2) Amiga. The cheapest and most for the dollar would be none of the above but an XT Turbo, 640K because that bus is supported by hundreds of daughter boards and that MS-DOS machine has nearly all of the latest and best software like Paradox, Javelin, Excel, Auto CAD, Math CAD, Micro CAD, Pagemaker, and Word Star." --1134

"(1) No. My desk is only so big, and I'd hate to duplicate all that hardware and display...especially if it would cost me $500. (2) Apple Macintosh II. At this point, I wouldn't let the availability/unavailability of CommInS affect my choice of a computer...other features would outweigh CommInS in my decision." --1137

"(1) I'm a poor grad student. I would recommend this purchase to a number of private sector and government agencies that I've worked for. (2) IBM-PS/2 Model 60. Why not? I'm heavily invested into PC-DOS commands; it will take a breakthrough to make me learn Apple. Some extra thoughts: a) Better file management -- save all files in a line to a new subdirectory or to a floppy to print elsewhere. b) When you Alt-k, should perform in background or mark for deletion upon exit. Takes too much time if many files, e.g. thirty. c) Allow to delete one line but same article if appear elsewhere. d) Cut out all the 'Advisories'. They are useless and somehow sneak in even if have '~(category: summaries)' in you line. Besides, this is too long and prohibits more useful words. e) Allow longer lines, e.g. 160 characters (or join two lines)." --1141

"(1) Yes. (2) Don't know. I'd have to check with someone who knows about these matters (I don't)." --1148

"(1) Yes. As soon a I figure that $500/5 years is approximately $2/week, the decision was easy. (2) None of the above! my next machine will probably be a 386 clone of some sort." --1152

"(1) No. We have enough equipment that we could treat the machine it is on as more or less dedicated. We do not have enough desk space to add another publicly accessible, dedicated, in this case, machine. (2) Apple Macintosh II. It's really a toss up between the 60 and the Mac II, depending as it does on the dynamic of software development by commercial vendors on the different platforms, and the changing needs for which we would otherwise use the machine. We could not consider the Amiga." --1154

"(1) Yes. With OS2 machines, should be able to multitask, don't need stand alone. (2) IBM-PS/2 Model 60. Everybody tells me I'm wrong and should go Mac, but I continue to believe OS2 with windows is the best option." --1158

"(1) No. I would still like a PC at home, and another computer would be too many -- 2>>1 with home PCs. The $500 is not really an issue, provided it could be paid in regular installments. I think even if the machine was free, I'd like PC version. No one would want to leave a dedicated machine on all the time at home (electric bills). Business is another story. (2) Amiga. PS/2 costs too much. I never did like the Mac. Amiga looks okay, I guess, of these three. I don't quite understand this question." --1163

"(1) No. It depends on whether this is my only option for access. I prefer monthly charge. (2) Apple Macintosh II. It's different and can be used for things that don't work well on IBM." --1165

"(1) No. While $500 could be justified, for the cost of the raw news, it's too high a price point considering I already own a computer. (2) IBM-PS/2 Model 60. IBM because of the variety of business software available, as well as the amount of software I already own." --1171

"(1) Yes. This computer would have to be much smaller than my PC-XT. Finding space for two full size systems would be very difficult, or out of the question. Software would have to be somewhat enhanced (as presumably is just around the corner). If these two conditions were met, I'd say the scenario described, at $100 per year, would represent an excellent deal. (2) IBM-PS/2 Model 60. Having one state of the art IBM type machine doing true multitasking/time sharing, including the CommInS, appeals even more than the first scenario, though I would wait until the bugs I've heard are still plaguing the PS/2 have been worked out." --1174

"(1) No. I could change my mind if I was presented with all the alternatives. I would consider spending $500 if the system seemed better than running CommInS in the background as I do now the Desqview. I like to be able to transfer information received on CommInS to other programs. Could this new computer do this? How many articles could be stored in the $500 machine? (2) IBM-PS/2 Model 60. I would run CommInS in background. I would want a machine that I could use for doing work at home that I took back to the office. As of now, I would need an IBM compatible machine because that is what is in my office." --1181

"(1) No. (2) IBM-PS/2 Model 60." --1194

"(1) Yes. Just for the opportunity to browse through important news items, it is worth it. (2) Apple Macintosh II. We tend to use Macs for office equipment -- not really an IBM house." --1201

"(1) No. I have three computers already. Why would I want a computer especially for only one program? What if all my programs switched to dedicated machines? As one who escaped the limitations of a word processor when I bought my IBM, I would consider going to a dedicated machine as a step backwards. (2) IBM-PS/2 Model 60. I have IBMs now and I'd probably continue on one. However, I think it's important for you to consider a program that could be run on any of these and on my present machines (PC, XT, laptop). My fun with this program increased 100% when I could carry it around with me with the laptop. It more closely parallels the relaxation feature of a hard copy of the newspaper. **Extra:** It still bothers me that if I have an article in two filters and I delete one, it automatically disappears from the other. Is there some way around this? Also, I've noticed this month that the summaries often don't include enough information to know what the article is about (the title would even be better). Only a tiny part of the first sentence shows, I don't like this. It means I have to read an article to see what the subject is." --1206

"(1) Yes. That would be terrific -- cheaper than a subscription to a newspaper for that period of time. Also, I want to follow news stories selectively and inexpensively and the CommInS system lets me do this without interruption without anyone monitoring what I'm doing. (2) IBM-PS/2 Model 60. I am more interested in on-line data bases communications and multi-tasking systems than in the great graphics capabilities of the Macintosh -- my preference is to stay with IBM." --1207

"(1) No. I think $500 for five years is probably the maximum (or just beyond) I would be willing to pay for the CommInS. However, the extra clutter and space required for a dedicated news machine in addition to my PC tips the balance against the CommInS. (2) Apple Macintosh II. A very tough decision between IBM and Apple. My other applications would be scientific word processing (better on a Mac) and econometric number crunching (software limited for Mac, non-existent on PS/2, good for DOS). At present, I would favor Apple: more memory, better O.S., math co-processor standard. However, the balance could be very different in a year's time (could tilt either way)." --1208

"(1) Yes. I'd prefer to run it in dedicated mode rather than swap RS-232 cords with other serial devices. (2) IBM-PS/2 Model 60. My office is an IBM shop. No good reason." --1209

"(1) No. What the machine/software/system available when I need it for specific retrieval. (2) IBM-PS/2 Model 60. Still sticking with MS DOS machine, though Mac is very attractive." --1210

"(1) No. I do not feel I want to be dedicated to CommInS. If the $500 machine could also allow execution of DOS programs in foreground, I'd buy. (2) Apple Macintosh II. I have experienced the DOS world and would like to become comfortable with Mac's friendlier user interface." --1212

"(1) No. For $500, it would be a waste of electronics. (2) IBM-PS/2 Model 60. I would buy a PS/2 because it is a better machine." --1214

"(1) No. Current service of not enough value. (2) Apple Macintosh II." --1216

"(1) No. Other media much more price performance competitive. Concerned that broadcasts will stop and leave one with a piece of junk. No stock quotes. (2) Apple Macintosh II. Already have an IBM clone! Not clear where the PS/2 is going." --1220

"(1) No. I use the computer as a hobby. I don't want more machines to clutter the area." --1221

"(1) Maybe. I would be disappointed in this outcome. (2) None of the above. I am (almost) happy with my present machine, a 386 running Windows/386. The news service runs as a background task." --1225

"(1) No. Why would I want to purchase a dedicated system when (perhaps for a small monthly fee), I could have the CommInS system running on a much more versatile PC. I don't think the CommInS system has reached a level of usefulness where it merits a dedicated machine. (2) IBM-PS/2 Model 60. I feel that the IBM-PS/2 has the most potential for being useful to me in other areas as well as for future expansion." --1227

"(1) Yes. If, a) I'm feeling flush enough. b) Speed is fast. My biggest complaint with the current laptop. (Needs to be comparable to AT) c) Can queue printing. (2) IBM-PS/2 Model 60. a) I need another big machine anyway. b) It's fast. c) I feel comfortable letting it run 24 hours. (Would get most CommInS articles overnight and use machine for other things during the day.)" --1235

"(1) No. Because today most people already own personal computers that can run all types of software and would not spend money on a dedicated CommInS computer. (2) Apple Macintosh II. I would use computer above, because it can do many other things that interest me more easily and efficiently than my IBM XT clone." --1243

"(1) Yes. I already use my Compaq -- dedicated -- for CommInS so this is not that different. (2) Apple Macintosh II. I already have IBM compatibles, I'd like to try a Mac. I don't care about Amiga. --1244

"(1) No. Unless it were extremely important to me, I couldn't justify spending this kind of money for one dedicated task. Besides the cost, I'm uninterested for two other reasons: a) I'm against single purpose devices and b) I'm running out of desk space at home. (2) IBM-PS/2 Model 60. Actually, this is the case for me. I intend to buy a PC-AT clone and use it for CommInS use, in addition to some other PC programming tasks." --1263

"(1) No. Rather than have the extra hardware around I would much prefer using the CommInS system on my present system as a background operation. I think that one is more apt to take a look at the news between tasks than make a special effort to sit down at another computer. (2) IBM-PS/2 Model 60. This is my current preference, however I have not ruled out the Macintosh II yet." --1277

"(1) No. I do not need to run the CommInS software on a 100% basis. since I already own a computer. I would not spend $500 to purchase another one. (2) Apple Macintosh II. I don't know anything about the Amiga. However, between a Mac and an IBM I would always choose the Apple machine. I enjoy working with a mouse and I don't want to spend the time learning DOS commands." --1281

"(1) Yes. (2) Who wants to spend $3K for this. Only the Amiga is 'reasonably' priced. But, key would be machine specific support by CommInS. Price aside, I'd use a Mac II." --1295

"(1) Yes. Probably would, but a multitasking computer is psychologically much more appealing and 'certainly' should be possible. (2) Apple Macintosh II. The Mac is the best user interactive machine on the market, but the IBM standard is hard to get away from. To communicate with my office, e.g., I must be IBM compatible." --1297

OFFICIAL DISTRIBUTION LIST

Director
Information Processing Techniques Office
Defense Advanced Research Projects Agency
1400 Wilson Boulevard
Arlington, VA 22209

2 copies

Office of Naval Research
800 North Quincy Street
Arlington, VA 22217
Attn: Dr. R. Grafton, Code 433

2 copies

Director, Code 2627
Naval Research Laboratory
Washington, DC 20375

6 copies

Defense Technical Information Center
Cameron Station
Alexandria, VA 22314

12 copies

National Science Foundation
Office of Computing Activities
1800 G. Street, N.W.
Washington, DC 20550
Attn: Program Director

2 copies

Dr. E.B. Royce, Code 38
Head, Research Department
Naval Weapons Center
China Lake, CA 93555

1 copy